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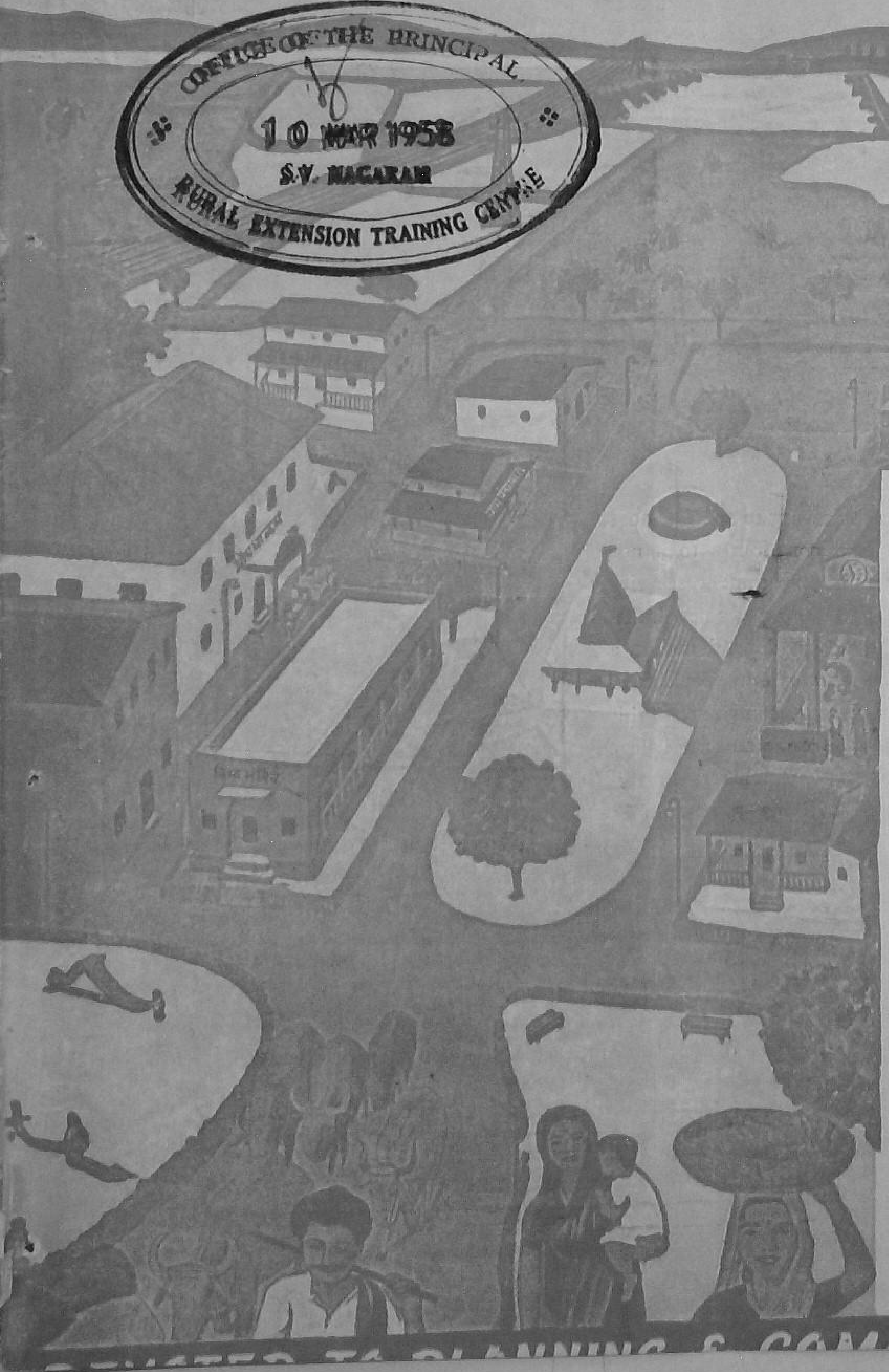

JAN. & FEB., 1958

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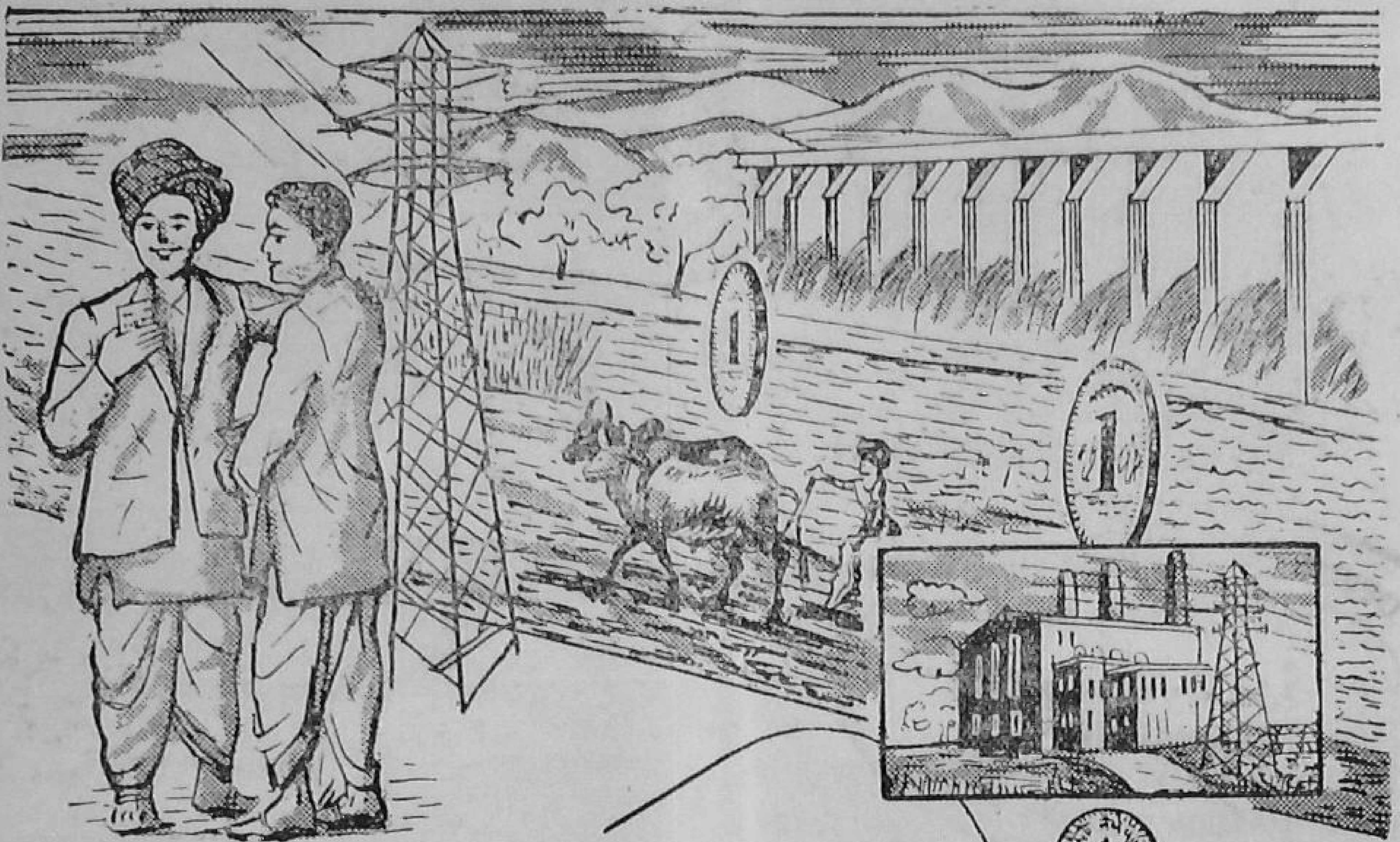

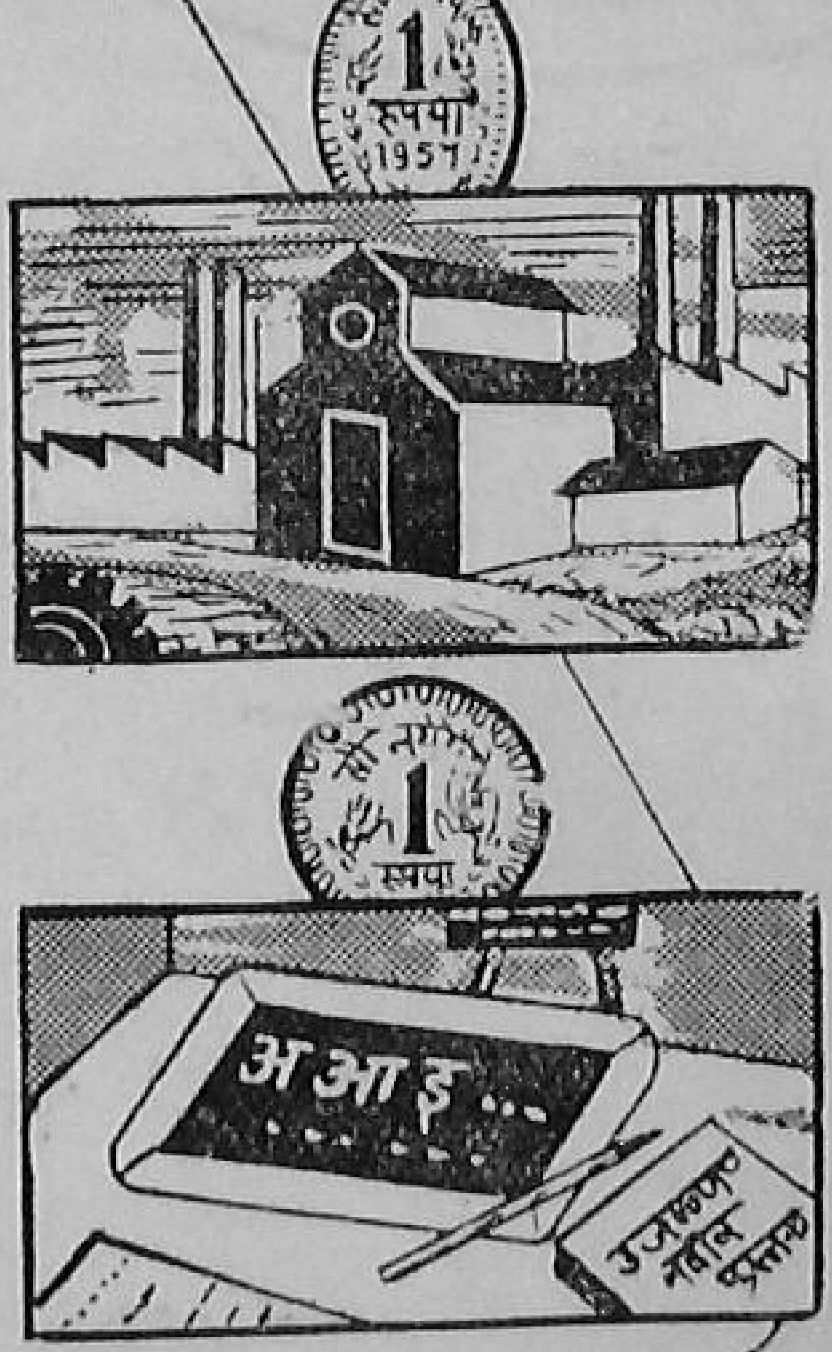

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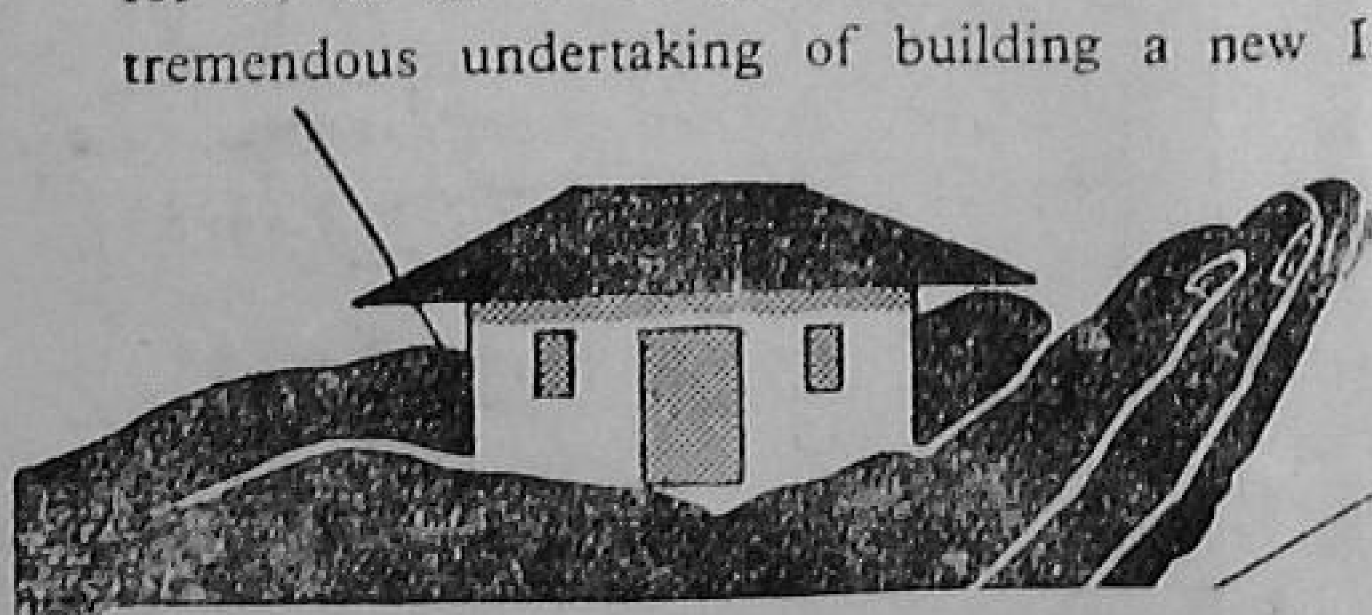

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" Salvation of India lies in Cottages. "

—*MAHATMA GANDHI*

CONGRESS RESOLUTION ON THE ECONOMIC SITUATION AND FOOD PRODUCTION

IN a lengthy resolution passed by the 63rd session of the Indian National Congress held at Pragyotishpur (Assam), the Congress has stressed the need of improving the Economic Situation of the country through increased food production to meet the financial needs of the Second Five-Year Plan. The relevant portion of the resolution reads :—

"The dominant factor in the economic situation is the internal strength of the country's economy. The building of internal resources is, therefore, of the highest importance. Increased production is essential and a substantial part of this should be canalised into savings to provide capital for further development. In an undeveloped economy where people have been living for a long time past on marginal levels of subsistence, any increase in their earnings does not automatically make available a surplus for development. A great part of these increased earnings goes into increased consumption which is bound to add to inflationary tendencies. Thus, it is important not only to create a surplus, but to divert it towards saving and investment.

"The key to internal resources lies in the production of food grains and cash crops. In a country like India, agricultural production, more especially of food grains, is of basic importance and industrial development cannot take place unless agriculture produces an adequate surplus. During the last three years, many parts of India have suffered from bad harvests. In the past year, especially, there were heavy foods and drought in various parts of the country, resulting in a large-scale import of food grains, which has burdened the country's economy very greatly and upset previous calculations.

"It is, therefore, of vital importance to increase the production of food grains so as to put an end to all imports. Indeed, the aim should be a surplus to provide for all possible contingencies. At present, the yield per acre of food grains in India is almost the lowest in the world, and there is thus great room for adding to this yield. In fact, experts have indicated that with soil conservation and intensive cultivation, this yield can be raised three or four times, that is, 300 to 400 percent. While such an increase will necessarily take time, it is possible to have a substantial increase within a reasonable period.

"The old extensive methods of agriculture should give place to intensive work, more especially in the areas which are irrigated or which have a substantial rainfall. Such areas are estimated at 100 million acres.

"During the past few years, river valley schemes and minor irrigation works and tubewells have provided water for new and wide areas. Unfortunately, all this available supply of water has not been taken full advantage of chiefly because of the lack of field irrigation channels. It is estimated that, if all the available supplies had been fully used, there would have been no deficit of food grains such as we have recently had.

"It is, therefore, necessary :

(1) To utilise all the available supplies of water by making distributories and field irrigation channels.

(2) The rates charged for water from tubewells should be so fixed as to be within the reach of the cultivator. Where necessary, such rates should be low to begin with and gradually raised to the normal level.

(3) Old tanks and wells should be repaired.

(4) Minor irrigation works should be constructed

(5) Prevention of soil erosion by bunding and afforestation.

(6) Every community block should have an area reserved for producing better seeds.

(7) Production and use of green manure should be encouraged. Compost should be used in addition to chemical fertilisers.

(8) An approach should be made to the individual farmer and his target of production fixed.

(9) Organised attempt should be made to develop substitute foods and to encourage balanced diets.

(10) Production of short-term crops should be undertaken systematically and immediately.

(11) Saline lands should be brought under cultivation after the necessary treatment.

(12) Steps should be taken against water-logging.

"State Agriculture Departments should concentrate on this programme and utilise the machinery of the community blocks for this purpose. The basic rural organisation should be the panchayat and the village multi-purpose co-operative. It is important that this co-operative should be non-official and should not be too large. The village panchayat and the village co-operative should be the base of political and economic democracy in the country and should form the spearhead of the various activities of the village.

"The Congress welcomes the recent decision of the National Development Council based on the recommendation of the Balvantrai Mehta Committee on community development, to democratise and decentrâlise the organisation for rural development.

"In addition to the proposals made above, all wastage of foodstuffs should be avoided and, in particular, the consumption of rice in the wheat-eating areas should be strictly limited. The Government should take effective steps to prevent hoarding.

"It is impossible to increase food production very considerably and within a relatively short period of time, unless the urgency of this problem is realised and every effort is made by all concerned that is, Governments, organisations, individual cultivators and the public generally, to take part in this campaign on the lines indicated above. The target of nearly 30 percent increase given in the Second Five-Year Plan can be greatly exceeded if this effort is made in an organised way. It is necessary to assure the cultivator that food grain prices shall be maintained at levels as will provide reasonable and adequate incentives for increased production.

"While the various basic major industrial projects in the Plan have to be proceeded with as future development depends upon them, special attention has to be given to small-scale and village industries. Such small industries do not require much capital or foreign exchange. The general effect of heavy expenditure on the Plan is resulting in increasing incomes over a large sector and the first impact of this increased income is on foop grains and consumer goods. This demand for consumer goods should be met by the development of small-scale and village industries which, in addition, provide employment to many persons."

In moving the resolution on the Economic Situation and Food Production in the Subjects Committee of the Congress, the Prime Minister, Shri Nehru is reported to have very correctly stated that, "big problems could not be solved by passing "brave resolutions."

And, it is exactly the same that the Congress and the Congress Governments have been doing all these 10 years and more. It is no wonder, therefore, that people hardly attach much significance or seriousness either to the resolutions of the Congress or the declarations and decisions of the Congress Government. The reason being that the leaders who pass these resolutions and take decisions in the Government themselves lack that seriousness of purpose and determination which should evoke response from the people. Paper resolutions cannot make up for the defficiency of 'Character' which, by and large, characterise the present day leadership.

"Save-the-Plan Programme."

From the proceedings of the Congress that have appeared in the Press, the Gouhati Session has underlined the necessity of the twin items of increased food production and stepping up of small savings to save the Second Plan. In the words of Shri Nehru, "*the Plan is a bigger challenge than the challenge of freedom*" and "*if the food problem is not solved, than everything will collapse.*

In the catching phrase, the "Battle of the Plan," the Congress has taken decision to intensify the food production and small savings programme throughout the country by organising district-wise and then village-wise targets of food production and small savings. And, it expects the 1,80,000 odd members of the 18,000 Mandal Committees to throw themselves whole-heartedly into this battle. The increase of food production aimed at during the period of the Second Plan, i.e. the next three years, is 30 percent. It has to be seen how the Congress organisation and its members, who in the past have not been credited for discipline and dedication to constructive work in villages, will respond to this call in years to come.

Refuse to learn from the past

By and large, Congress leadership under our Prime Minister, Shri Nehru, is characterised by living in imaginary future, forgetting the past and taking no account of the present. In a way that is a good tactics to escape from the unpleasant realities of the situation and to keep the people gazing and hoping for something better and brighter in future. As a short-term policy, it promises to be quite sucessful, as it has been in the case of this country. But past is inextricably woven up into our present and future texture and there is no escape from it, howsoever we may try to run away from it. It is rather amazing that our leaders in their hurry to produce spectacular results refuse to learn any lesson from their past failures and that lands the country into successive failures and frustrations.

While the Ashok Mehta Food Grains Inquiry Committee which has toured all over the country and collected all possible evidence about the possibility of increasing food-grains in the country during the remaining period of the plan recommends only a target of 10 percent increase, the Prime Minister insists on increasing it 30 to 40 percent during the same period without taking into account what such an extraordinary effort would mean in terms of men, money, equipment and organisation. And, whether the Government with its inadequate financial resources and lack of trained personnel would be able to cope with the accelerated demands of such a venture.

It is a desirable quality in a politician to be ambitious and even over ambitious, which, our Prime Minister claims that he is. But this quality should not be stretched to the extent of being unreal and impractical and shouid not necessarily be divorced from the experiences of the past. The problem of increased food production has been with us all these 10 years of independence through successive programmes of "Grow More Food" campaign and the First Five-Year Plan and the results produced as a result of huge public expenditure of hundreds of crores have been rather poor if not disappointing. This is borne out by the Prime Ministers's own critical observation while presiding over the sixth meeting of the Standing Committee of the National Development Council, immediately preceding the Congress Session, when he is reported to have stated :—

"It is quite extraordinary how pessimistic we are about our capacity and the capacity of the country. Naturally, food production does not increase by itself. It requires organised effort. Therefore, the fault is in ourselves, not in our stars. The fault is in the steps we take or the inadequacy of the steps, whatever they may be.

"If we function at that rate, our rate of progress will be so slow that our great grand-children will be drawing up some wretched five-year plan for another six inches of growth. We have to move faster than this and have more dynamic approach."

That being the picture of the past performance of the administrative machinery at the food front during the last 10 years, it is rather self-delusion and hoping against hope to expect 30 or 40 percent increase in food production during the next three years of the Second Plan. The hope, that 1,80,000 members of the Mandal Samities of the Congress organisation would throw themselves whole-heartedly into the "battle of food", while, in the words of the Congress President himself their past record has been one of complete neglect of the villages, is rather misplaced. They are already absorbed in the "battle of power and personal profit" and no amount of exhortations from the Congress President can wean them to change their direction from personal to communal or national benefit. Had it been so the history of the Congress rule would have been different than what it is.

Lack of co-ordination and indiscipline

During our study tours to several Community Projects and N. E. S. blocks, we were amazed to see lack of co-ordination, indiscipline and want of enthusiasm and interest in the staff engaged in developing these projects. Majority of the staff in responsible positions—mostly transferred from Revenue Department—was a disgruntled lot and had hardly any clear conception as to what planning and development programme mean. Obviously, development with ignorant and disinterested human machinery should only result in national wastage. While addressing a meeting in Bombay, Shri Ashok Mehta, who had the advantage of studying the progress of planning and development all over the country in the course of the Foodgrains Inquiry Committe, is reported to have stated :—

"If Indians did not show intellectual discipline needed for the democratic reconstruction of the country, planned economic development would prove to be a very painful process. *His own reading of the situation in the country was that people did not have the requisite interest in planned development.*

"The difficulties encountered in the implementation of the plan projects were largly due to the "amazing lack of Co-ordination" among those at the helm of affairs in the Central Government. A visit to Delhi would prove it".

To a keen and impartial student of planning Delhi represents a mass of confusion and national wastage and he would have no difficulty in agreeing with the views of Mr. Mehta.

Inevitability of Change

After 10 years of independence and self-rule, the country finds itself faced with all sorts of problems and crises mounting up with much diminished hope of their solution from the ruling party. The worsening of the food situation once again, which could not be solved by the party in power during long 10 years of its rule is a definite pointer to the necessity of change of both men and methods to fulfil the development programme of the country. The change is inevitable. Only, it may come after the culmination of these crises into a big shock.

NOTE

EDUCATIONAL RECONSTRUCTION

ONE of the important resolutions passed at the Pragjyotishpur session of the Congress was about Educational Reconstruction, which reads as follows :

"The Avadi session of the Congress had laid stress on the urgent need for introducing far-reaching changes in the educational system of the country and had welcomed the policy adopted by the Government of India and the Planning Commission of introducing basic education as the future pattern of primary as well as secondary education in India. The Second Five-Year Plan also provides for the expansion of basic education as national pattern throughout the country. The progress made in this respect, however, in different States has not been satisfactory. This is due not only to paucity of funds and the dearth of trained teachers but also to lack of direction and sustained effort.

"The Congress attaches great importance to the spread of education of the basic type which is necessary not only to build up good citizens but also for the general development of the country, and is of the opinion that priority should be given to this and, more especially, to the conversion of the existing elementary schools into basic schools.

"A distressing aspect of the present system of education in India is that it does not promote any basic loyalties among students, nor does it lay stress on the ethical approach to life's problems. Young boys and girls should be made to realise the dangers of narrow and separatist tendencies, like casteism, communalism, linguistic fanaticism and religious intolerance, and efforts must be made to develop a sense of basic loyalty to the unity and welfare of the nation, tolerance and high standards of behaviour. The future of India will ultimately depend on the character and national spirit of young men and women and the training they receive in our educational institutions.

"Every system of education depends upon the direction that is given to it and upon the right type of teachers, on whom the great responsibility rests of training and shaping the character of the rising generation. It is necessary therefore, to improve the training of teachers and raise their status, more especially in the elementary schools".

This, in a way, is a self-condemnatory resolution wherein the distressing aspect of the present system of education that it *does not promote any basic loyalties among students and does not lay stress on the ethical approach to life's problems* is deplored. Lack of direction and shortage of right type of teachers to shape the character of the young generation are some of the basic drawbacks pointed out by the resolution.

Mrs. Indira Gandhi while seconding the resolution, is reported to have attacked the present system of education and stated :—

"Although a great deal of progress has been made in the country in other spheres during the past seven or eight years, education had lagged far behind. This was responsible for many of the ills the country was suffering from.

"She did not think that basic education was given a fair trial at all. Whatever had been done was far from satisfactory. In the present-day education, young children did not get the training necessary for acquiring the art of original thinking and research".

For building a great nation, the foundation has to be laid by moulding the character of the young generation through appropriate educational system. Our leaders as well as lay-men knew the defects of the present system of education long before Independence. The spectacle of utter dissatisfaction and pathetic distress at its outcome, as deplored in the course of the resolution, is a story of the failure of the congress leaders and its administration to build up the educational base all these 10 years of their rule.

The failure of the present administration is writ large in almost every aspect of national reconstruction programme. That is proof positive of the incapacity of the present leadership to give practical shape to their pious intentions.

We wonder, how long the people will continue to put up with this degenerating trend in our national affairs with pathetic helplessness and inactivity !

PROGRESSIVE VILLAGE LIFE TODAY (1958)

By: **G. B. SIRDESHPANDE**

RECENTLY, I made up my mind to visit a progressive village and note down the living conditions and the feelings of the village inmates there. One day, I started for a village which I had visited some twenty years back. I knew many people there. I alighted at the crossing of the approach road to that village.

Along with me two other passengers alighted from the bus. They were also proceeding to the same village. One was a stranger to me–a city dweller who was going to meet his relations in that village. Another was a literate youth from the same village. The village youth wore a blue serge coat but had no footwears. He carried a small luggage of saris and bodice cloth. The youth appeared literate, intelligent and well-informed about current events in India. On our way, the city fellow-traveller asked the village youth how it was when he wore a costly coat had no footwears on his feet.

The youth smilingly replied: "This is our method of planning. We start building from the top. Do we not start building de-luxe coaches before providing standing accommodation to our third class passengers? We have taken up big river valley schemes and giant iron and steel factories on the American and Russian models. We cannot spare money for small irrigation tanks and Takavi loans for our struggling agriculturists. We have enough money for luxuries. We cannot spare money for necessaries.

Our village secured a prize of Rs. 25,000 from the Government for tendering the biggest levy of grain in the days of control. The village people wanted a tractor in that sum to clear off all the weed infested lands from the village. But the Government said 'No'. The prize should be utilised for a school building. Villagers want urgencies. Government supplies them with luxuries which they cannot make use of. I am also following in the footsteps of my leaders. Hence this incongruity."

I approached the village through the approach road which had been recently made. It was four miles from the bus stand. There is a grand school building on the outskirts of the village. That too is newly built. I saw only a few very young boys and girls (about 25) sitting on an indifferently prepared flooring. I inquired why the flooring has been shabbily completed when there has been a grand structure of the building. "It had to be hurriedly finished to be ready for opening by a political leader visiting that side" replied a villager.

Why is there such a poor attendance though the village has a population of more than 2,000? said I.

The majority of the people here are poor. They can hardly afford to send their boys and girls to school. In higher standards, the number of school text books have increased of late. Agricultural labour class and peasants can ill afford to provide all these text books to their boys and girls. Only small children are sent to school to avoid noise and bustle in their houses. Poor people send their boys and girls for tending cattle and do other household duties. Every boy and girl is an earner in the peasant's family. The boy or girl becomes a burden when he or she is sent to school. The result is poor attendance and that too primarily of small children, "expressed the teacher.

What about the Free and Compulsory Education Act ?

"Just as prohibition and Anti-usury and Anti-Corruption measures are functioning, so also this Act. Such ineffective measures have filled the statute book since Independence." expressed a person standing by the school teacher.

"What is the remedy for avoiding all such waste of expenditure in the country ? Government builds huge irrigation projects ; you do not make use of the water. They build schools; you do not send your children to school. They build maternity homes; you do not make use of them. When our Government supplies you with amenities why not make use of them ?" I expressed.

"The wearer must be consulted before the shoe is made and not afterwards", cooly replied the same former gentlemen.

Changing pattern of consumption

Then on my way to the Panchayat Office, I stopped at a big grocer's shop. I knew the grocer. I was visiting the village after a score of years. I wanted to meet as many people as possible and record their reactions to the changing aspect of life. I met the grocer who welcomed me in the shop. His shop is well built accommodating a lot of material.

"How do you do? I asked.

"Very well, Sir." Replied the grocer.

I saw a big stock of bidi bundles heaped in the shop.

"Why have you stocked such a big quantity of bidies in your shop ?" I questioned.

"The stock is not sufficient even for a fortnight" replied the grocer, and added: "there is a brisk demand for bidis, tea, sugar and parched rice now-a-days. Jaggery was also a fast-selling commodity when there was rampant illicit distillation in this village. The village became notorious for illicit distillation. On account of rivalries between the distillators, the matter received attention from the authorities. The Village Officers were severely warned in this respect and threatened action against them had the salutory effect of completely stopping that trade in this village. The business has since then shifted itself to the place where there is Police Thana. We grocers have lost jaggery trade since then".

"There were formerly only three grocer's shops in this village. Today there are ten shops. Their stock consists mainly of bidis, tea powder, sugar, parched rice, washing soap, cheap children's biscuits. We have a brisk trade early in the morning in these commodities. There are four tea shops and they and others use parched rice "spiced" as supplement to tea. Tea drinking has enormously increased. Men drink tea in shops to avoid their women folk getting into the habit of drinking tea daily. But women and children prepare tea and drink behind their men's back. Thereby much of our sale price is received in the form of local grain from the women folk and children. Nobody is happy without a cheering cup of tea in the morning. People will even forego meals but not the tea. Tea and tobacco have become the life streams of existence. Government is unnecessarily panicky about deficit in food production and inadequate supply to the people. If only the Government will take measures to cheapen tea drink, food deficit will not be felt by the people. There will be less consumption of food and no headache to the Government in the matter of supplying food stuff to the people."

"Yours is a fine remedy" said I.

"This is my actual experience of the present village life. Tea and bidis have worked wonders. They have steadied people's nerves. They have made people

active. They have quickened economic incentive (including thieving) in the public. They have endowed people with more resisting power against the common diseases in villages. May be they have increased longevity. Fewer people die now-a-days than formerly."

Many Amenities of Life Available.

Next, I visited the Panchyat office. There were many (leisured class) gathered there. They had gathered for post and the daily paper. The vernacular daily was being read by one and listened by many. I saw many files of weeklies and monthlies, hung on the walls. Panchayat office was a spacious building housing a post office, Dispensary, Credit Co-operative Society and Village Improvement Association and a redio set. I met some of my old acquaintances there. Part of the congregation consisted of unemployed educated people. They were clean shaved and in clean clothes. The former head gear had disappeared. All of them welcomed me and started a talk on general topics, including politics. Somebody inquired if zarring's report on Kashmir had been out. I fumbled in the matter.

I started asking them about their village living conditions. They all agreed : since high prices for farm products their living conditions have improved a gread deal. Their village can boast of every convenience which an urban dweller enjoys now-a-days in India—except tap water and electricity. They have an approach road to the bus stand. They have a good school building. They have daily post. They have a library and a reading room. They have a radio in Panchayat Office for entertainment. An amateur dramatic circle to regale them once or twice in a year at the time of local fair and on other festive occasions. They have two flour mills. They have a small ginning factory. They have an edible oil ghany. They have lights in the streets at night. A visiting doctor twice in a week. Only they were afraid to approach him because he prescribes injections for every ailment. Even for an ear ache, he wants to give an injection!

Then you are much happier than what you were before a decade back!

"Certainly" replied one and all.

"But" stammered one or two dissenting voices.

Dharma has declined

"I have been a labourer since my boyhood days," started one old man. "If things had continued in the old way, I should have become a peasant or farmer, if luck had favoured. Since Tenancy Legislation has come, I have to remain a farm labourer. No land is available to me for cultivation as a tenant-promotion from the labouring class. All the cultivable land has been tied to these persons. They either own the land or have become protected tenants. They pay nominal consideration to the original landholders. All the former non-cultivating landholders have either sold away their holdings or have been cultivating them personally by keeping hired labourers. So, people of my type have no chance to get any piece of land for cultivation. We cannot purchase any land as we have no money nor get any on hire on account of protected tenants. We and our sons are condemned to perpetual wage slavery. Through hopelessness many of our class have left the village and migrated to industrial centres though their heart is in agriculture and the freedom of village life. Our Raj (the Congress) documented, we have freedom to follow any profession and hold any property. But the door to get that freedom is closed. We can understand breaking up monopoly in landed

estate. But to treat medium type landholders as landlords and depriving them of their holdings is unprovoked cruelty. It is such middle-class landlords who used to give us a lift to become peasants. They have become paupers today. They are living on their capital.

The present land ownership is capitalist in the extreme. They want to keep everything to themselves. Formerly the hired agricultural labourer was fed with the same food which the owner enjoyed. Today it is different. The present ownership wants maximum work for least payment. The present labour in return has no sympathy or consideration for the prosperity or otherwise of the master. The agricultural labourer has become time watcher and irresponsible. Social cohesion has snapped. Everybody for himself. In this struggle, the weaker gets crushed. The unwary landholder becomes insolvent in a few years time. The depraved meets with arson or robbery and even murder. The gulf is widening between the new classes and the masses.

Nothing moves now-a-days without money. My son is also a vernacular school final pass. He could not get a job either as a teacher or as a constable or any other similar job, as he had no purchase money to pay for it. His co-students who could afford to spare money have secured jobs. Money rules everywhere. Manoeuvring has become a fine Art. Economics has subordinated ethics. The flirt has dominated the dutiful wife. Till truth and virtue gain ascendancy, we shall never be happy. We are enjoying a drunkard's paradise now. The ape of wisdom is felt to be functioning behind the surface everywhere."

ROLE OF THE SMALL SAVINGS IN THE PLAN

By: **Prof. S. V. RAMAYYA**

RECENTLY there has been an increasing stress on the importance of small-savings as a means of providing adequte means for financing a part of the Second Plan. The Second Plan has proposed to raise resources by small-savings to the tune of Rs. 500 crores. But as the Plan progressed, it is found that the needed resources of Rs. 4800 crores could not be raised as anticipated due to many factors. Thanks to the continuous rise in prices the Planners are no longer enthusiastic about having deficit financing to the amount of Rs. 1200/- crores. Mr. T. T. Krishnamachari has revealed that the amount of deficit financing may not exceed Rs. 1000 crores and this figure may become even less provided other resources could be tapped.

Through taxation it was envisaged to raise an additional revenue of Rs. 450 crores and through surpluses from current revenues Rs. 350 crores. Now the target for additional taxation has been raised to Rs. 850 crores and it is stated to be the minimum limit for taxation in the Second Plan period.

By loans the Commission had aimed at raising Rs. 700 crores. This calculation was based on the response to public loans in the first plan period. To this we must add about Rs. 430 crores which would mature for repayment during the same period — so the total borrowings

may actually work at 1130 crores. In the Second Plan we cannot ignore the existence of private sector for fulfilling its targets. So the Government cannot mop up all the purchasing power for itself.

Hence the stress has been diverted now to raising amounts by collection of small savings. The plan had put the target at Rs. 400 crores because the collections in this First Plan had been very encouraging. As our Prime Minister said "The Plan is an invitation to all of us to join in the mighty adventure of building up new India. It calls for sacrifices from one and all, even the humblest amongst us, so that every citizen may feel a common share in the great task of national rebuilding. The small savings movement is a means of attaining this objective."

The small savings aim at collecting from everybody some amount. In the first plan the collections from the small savings have been shown below :-

1950-51.	...	Rs. 33 Crores
1951-52.	...	Rs. 38.5 Crores
1952-53.	...	Rs. 40.2 Crores
1953-54.	...	Rs. 37.8 Crores
1954-55.	...	Rs. 54.6 Crores
1955-56.	...	Rs. 66.1 Crores.

For this year 1957-58 a target of Rs. 120 crores has been fixed but so far collections have been only of the order of Rs. 32 crores. Is the Government justified in raising the target to Rs. 120/- crores?

We find that the difficulties of collections of small savings have not been appreciated fully. We do not hold that it would be impossible to collect Rs. 500 crores in the plan period or the target is beyond our reach. What we point out is that the necessary efforts are not made.

Small savings cannot be collected in a vacuum. They are necessarily related to the particular economic conditions prevailing in the country. So far about 90 percent of the savings have come from Urban areas. With all round rise in prices of foodgrains and other essential commodities and additional taxes, the marginal surpluses of the middle classes in Urban areas have been reduced. So if we want, apart from patriotic reasons and considerations of self-help and thrift, to foster small savings we should peg the prices to reasonable levels.

There should be an approach to the rural population. It is assumed that there has been increasing flow of incomes from urban areas to rural areas. So if the peasants are approached in the right spirit we may get some encouraging response. The Government have announced that 75 percent of collections in the States would be handed over to the respective States and this should act an incentive. The people should be made to feel through adequate propaganda that the movement is essentially for their benefit. Once this feeling is created, the task becomes easier. So we plead that there should be a vigorous and intensive drive in villages for the collection of small-savings.

But we should not expect too much amount from this resource. Even in advanced countries of the world the amounts collected through this source have been very small. In our country with a large percentage of illiterate population bordering on poverty, with bad communications and age-long superstitions we should not expect a large amount. We require a band of vigorous workers imbued with a missionary zeal to carry the message of self-help to remote areas. The students can also play an important role in this campaign. They themselves could lead an austere living by cutting away excessive expenditure on ostentatious dress, cigarettes and

cinemas and invest those moneys, however small the amounts may be, in small savings. As the Deputy Chairman of the Planning Commission had stated recently the movement should spread to every family so that ulimately it may become a people's movement.

In order to make it a People's Movement we want that the Community Project areas should undertake this task of collecting the amount. The Gram Panchayats can be made the nucleus for popularising the scheme and providing the necessary leadership.

THE ORGANISATION OF SMALL SCALE INDUSTRIES IN JAPAN

By: **NAUTAMLAL C. TEJPAL**

IN Japan every industry and every trade has a fool-proof organisation, which keeps check on the quality and standard of every product and helps the healthy development of Industry's export and internal trade.

In Japan there is a highly organised system of Association for each type of trade and industry, and these Associations have the authority to issue import and export licenses, standardize and certify the products, sponsor export trade, arrange exhibitions in the foreign countries, run technical institutions to turn out skilled artisans for their industries and sponsor and help new inventions and inventors.

The Government policy regarding trade and industry is based on the advice of such associations, which are so powerful that they lay down the necessary rules and regulations which would help the healthy development of industry and trade. Licences, quotas etc. are fixed and distributed to the members by the Associations on principles of broad policy laid down with the consultation of the Government.

The hand which Government has in these Associations is that no trade or industry can be carried out by any non-member of the Association, for which the Government licence should be taken and renewed every year to start or continue a trade or industry, and no licence is issued or renewed without the recommendation of the concerning Association and the associations do all the other things partaining to the trade and industry without bothering the Government in the matter. So, unless one is a member of the Association, he cannot get the necessary licence to deal in that trade or industry.

In Japan and Germany 85 percent of the industries are small scale cottage industries employing less than 20 persons each. Their powerful associations see to it that no big combines encroach on their sphere of activities. And these Associations help to keep the small scale industries as efficient and upto-date as any big organised industry.

Relationship Between Associations and Members

In order to be a member of an association one has to deposit an equivalant of Rs. 50/- to Rs. 5000/- to get the membership card of the association: A retail cigarette shopkeeper has to pay only Rs. 50/ for the memership-card, while the rate of the Cotton importers associa-

tion, or textile Mill Owners association is as much as Rs. 5000/ for the membership. And any one firm can be a member of any number of associations by depositing different amounts for each Association membership. My firm in Japan was the member of Hosiery Exporters Assocaition, Textile Exporter Association, Pottery Exporters Ass., Toys exporters Asso., silk Exporters Ass., and unless I am the member of these Associations I cannot handle the allied products, so I had to keep more than Rs. 50,000 as deposits in the various associations.

We have this membership-card system in our Stock and Share Brokers' Associations. And by this method all the Japanese associations obtain a huge amount of finance by way of deposits without interest.

Next, each member of the association has to pay about one anna per Rs. 100/ of any trade dealing, against which the manufacturers get the small certificate stamps from the Associations in which the license number of the manufacturer is printed. And if any local or foreign consumer or dealer finds the product not upto the agreed standard, he has simply to complain to the Association, quoting the membership-card number, which is stamped on each article or its packet, and the association takes up the matter with the original manufacturer, and in case of fault of the manufacturer, the association compels him to pay the compensation to the dealer or importer, and in case of cheating or adulteration in the product, the Association even fines the manufacturer, and in case of reported offences, the licence of the member is cancelled and is thus thrown out of business completely. This is a kind of self-censure as in the case of Press Publication we had in our country. By this method the interests of Exporters, importers and consumers are safeguarded against fraud and adulteration, and the standard and quality of the products are rigidly maintained by these Associations, without any trouble to or interference of the Government.

Duties and Functions of the Associations

By the huge amount of interest-free deposits and by the regular income of cess of 1 anna per Rs. 100 worth of products, the Associations get ample finance for the development of the industries. Further they are so powerful financially that in case of need of further finance they can easily raise the loan from the foreign or local banks or from the public at very favourable terms.

These Associations jointly or separately enter into trade agreements with foreign countries, sponsor exhibitions of Japanese products in the foreign countries, publish magazines giving trade and technical information to the members. Also bring the latest creations of designs and technical improvements from the advanced Western countries, so that the Japanese manufacturer can have the latest information necessary for the improvement of their technique without any loss of time.

Further the Associations run the technical institutions and arrange the apprentice facilities to teach the technical "know-how" to the interested parties, and also maintain the research laboratories pertaining to their line of Industries. If any manufacturer or business concern wants any technical or trade advice he gets the same immediately through the technical or trade experts employed by the Associations.

Examples of the Activities of the Associations

(a) The textile Manufacturers and exporters Associations and the Raw

Cotton Importers Associations had accumulated billions of Yens from deposits and cess, which were used for the development of textile machinaries manufacture and other allied industries, and when Japan took over Manchuria in 1933, a huge cotton plantation was started in Manchuria by the above Association without any financial help from the Japanese Government.

(b) The above Association before the World War II dictated trade terms to the then Government of India, by which India was compelled to buy the Japanese textiles against the Japanese import of Indian raw cotton. And for a certain time the Japanese Cotton importers had boycotted the Indian cotton, and we had to import Japanese textiles so that interests of the Indian Cotton growers can be protected, by helping to dispose of their accumulated stock to Japan.

(c) Lately Japan made a deal with Pakistan, by which the Pakistani cotton was bought against the Japanese textiles. And now the Japanese exporters have come to an agreement with the Chinese Government for a trade deal for a considerable amount. While our India which is considered the friendliest country outside the Communists, to our neighbour China, have made no trade pact uptil now with the Communist China, nor have sent any trade delegation, though we had sent the cultural delegations of singers and dancers to China, while Japan the main enemy of China, in the last war, and a protege of capitalist America, which even now is a military base against Chinese reds fighting in Korea, can do a roaring business with China, and we claiming to be the friends of China are left out of it, only to dance our attendance by way of cultural delegation At present England too is selling textile products to Communist China and Russia through new trade agreement, and the truth is that England is buying the textiles from us, get it finished and stamped in England and then exports the same to Russia and China.

(d) These associations bring all the new discoveries and inventions of the foreign scientists and technicians and designers to the Japanese manufacturers to imitate. The new fashion designs in textile, hosiery or wearing apparels created for the next coming season in Paris, Vienna, New-York, Berlin or London are sent immediately to Japan by their agents, and the manufacturers at once start manufacturing the same, just in time to reach in the world market at the next proper season.

(e) The necessary technical advice is almost given free to the members of the Association. I visited a factory of Hosiery making machines in Japan, the owner of the factory wanted to manufacture for the first time in Japan a new type of Bearded Needle Looms called Wopple Looms. The manufacture of these types of looms was the monopoly of Germany, from which the Japanese were importing in large numbers. But since there were no technicians to manufacture the same in Japan, the Association of the Hosiery Manufacturers arranged to bring a technician at its own cost from Germany. The technician was a German Jew ready to teach the technique to the Japanese, and for his first six months of stay, whole of his salary was paid by the Association, then for the next six months Association paid half the salary, and the other half was paid by the Japanese Manufacturer, and after that the whole responsibility to pay the technician's full salary was on the manufacturer. So this is how any small or big industry gets free or at nominal rates expert services for a few

days or months with the help of the various associations. And the Associations are able to bear all such costs out of the income of the small cess on productions, import and export transactions.

Further to start new Industries the associations arrange with the Government for the favourable terms, and if the industry is quite new in Japan and is of national importance, even the income tax for the first 15 years from starting the industry is conceded by the Government.

This is how industries and trade are organised, developed, controlled and standardized, and black marketing, cheating and adulteration are checked. Sound organisation is the chief factor for planned development which we woefully lack.

APPROACHES TO AGRICULTURAL DEVELOPMENT

By: G. JAYACHANDRAN

AGRICULTURAL development is largely dependent on overall economic development and a spatial problem of uplifting the economy as a whole and increasing its productivity through improvements in technology and maintaining the gradual reduction in the cost of agricultural operations. Economic development consists in the fullest exploitation of human and material [1] resources and their harnessing to the perfect advantage of the situation created by the economic necessities by the human community in their process of life and competition. In other words, viewed broadly, what is under developed in the underdeveloped areas is their real income potentialities: development means exploiting these potentialities. The role of agriculture in this process of exploitation is crucial in under-developed regions.

Under-development means poor economic performance as evidenced by the comparatively low average of consumption and material well being of the people, plus the potentiality of improvement through the application of technological devices and efficient farm management. Under-development in Asiatic countries can be undermined by capitalising on the experiences of European countries. But it is unlikely that the changes will be wholly different in character or that the dislocations, adjustments and adaptations which the developed countries have experienced can be altogether avoided. Moreover, the process of development as it has already occured in western regions presumably has dubious reference to the problem of the material advancement of underdeveloped Asiatic countries.

But low productivity in agriculture undeniably explains the low income level of the great underdeveloped regions. Either when output is measured per capita or per unit of land, low productivity in agriculture underlies the low income of the underdeveloped world. Concomitantly agricultural development is closely dependent on the operational effectiveness of the important factor modulating the path of economic progress. Some of them, such as conditions of soil, climate, terrain and natural waterways, are relatively immutable; some,

[1] The non-human resources tend to be a variable, dependent upon the character of the human productive resources.

such as population, densities, availabilities of capital, social moors and religious taboos appear as relatively fixed from a short run view, but vary strikingly over the decades; others such as production techniques, systems of land tenure, irrigation and drainage projects can bring revolutionary changes in a single decade; while still others such as monetary and credit policies, taxes, marketing channels relative demands and prices can produce startling results in the span of the year. Whether subject to fast or slow transformation, however, any of these and many other factors can become the *strategic* ones, that is, the factors which seem most crucial in a given context of time and place, and which seem most urgently to demand remedy.

In a country where the money market is not fully developed some remedies such as the provision of public utilities and agricultural corporations are inevitably expensive. But other remedies such as the improvement of plant and animal breeds and strains frequently promise large increases of output without vast projects of mechanisation. Even where agricultural production is increasing faster than population many economies would gain from an increased efficiency of production coupled with a shift from a starchy to more diversified diet, particularly those providing protien. Moreover increased productive efficiency in agriculture even beyond the provision of physiologically adequate diets, is desirable whenever the factors of production it employs can be shifted to those of other employments which highest standards of living imply.

Where labour is the cheap factor, labour saving machinery is uneconomical: the cheapest method of production depends upon the relative factor prices. The labour must not only be cheap but also must be reasonably efficient. If the results of mechanisation of agricultural operation are more encouraging than inefficient employment of human agricultural labour, the development of agriculture and thereby economic progress will be grievously impeded. Hence any particular improvement must be appraised not only for its immediate effects on costs and output, but also in the general economic matrix of complementary industries.

Co-operative farming has been suggested as a remedy against subdivision and fragmentation of holdings, and the consequential dislocation caused by these ill features in the process of cultivation. Co-operative farming had not succeeded in India for the simple reason that the farmers who had been brought together by the Government did not really wish to cultivate in common, We, Indians, assailed by democratic qualms, could not apparently bring that much of pressure on the co-operative farmers which the Chinese Government could do. What economic and other gains the India Government expect from State-organised co-operative farming is not clear, but higher agricultural yields could not certainly be one of them. Students of Soviet agriculture like John Maynard had opined that collective farming in USSR had not perceptibly increased agricultural yields per acre, although by enabling the introduction of tractors and other machinery, it had served to divert surplus rural labour to industry. In India, industry being still in the stage of preliminary growth, and thus not in a position to absorb the voluminous surplus of rural labour which is mostly, unskilled, our main hope of raising agricuitural production consists in improving yields by better farming - through better irrigation, improved seeds and proper manuring.

That higher yield can be achieved by intensive individual farming has been amply demonstrated by the farmers in Japan who have shown little enthusiasm for co-operative farming. It is not by forcibly driving farmers into unwilling 'co-operatives' or by arbitrarily interfering with long established relations in agriculture that we can expect to achieve the 40 percent increase in agricultural output desired under the Second Plan. How unrelated the Planning Commission is to the realities of rural life may be judged from the light-heartedness with which it pleads for a rapid expansion of co-operative farming, undeterred by the scanty results achieved so far and the insuperable difficulties presented by the very much simpler problem of mitigating subdivision and encouraging consolidation of holdings.

In conclusion, the saving of labour in agriculture may encounter limits in the social cost and disruption entailed by technological unemployment. The only way to break the vicious circle of surplus labour, low incomes and concealed unemployment in agriculture is to make the unemployment explicit that is, to introduce progressive methods of production which will raise wages even at the cost of throwing people out of work. As the I.L.O. study of unemployment in less developed regions emphasises, extreme labour intensive methods of cultivation are the result of centuries of adaptation to growing pressure on the land. The wage rise in the agricultural industry is dependent upon the availability of alternative industrial employments and provisions for the transitionally unemployed. Only positive measures constitute development; rectification of defects and acts of omissions are only the indications to progress.

ECONOMIC INTERPRETATION OF INDIAN AGRICULTURE

By: **J. R. CHAWLA**

"THIS association of poverty with progress is the greatest enigma of our times", observes Henry George. "It is the essential fact from which spring industrial, social and political difficulties that perplex the world and with which statesmen and philanthrophy and education grapple invain. From it come the clouds that overhang the future of the most progressive and self-reliant nations. It is the riddle which the Sphinx of Fate puts to".

The vitality of such empirical formulation especially assumes a great impetus in the context of Indian economy in the rural sector which had been and still is the fountain-spring of national prosperity. The imprint of a destitute poverty on this vital sector of India and on "our cultural heritage", therefore, is really a "Sphinx" infesting our Thebes.

Agriculture, they say, is the bedrock of industrial monetisation and it is really unfortunate that India which has virtually become a "planners paradise", should have no Eden in the realm of ecological planning. The Panel of Economists, however, seems to have

visualised the significance of such planning and emphatically observes :—

"Thus, a new link could be established between the rural areas and the urban areas, and what is called urbanisation would not only increase employment in the country but also add to its regional spread, promote regional self-sufficiency, encourage a fruitful interchange between rural and semi-urban areas and take economic development into regions which need it the most, viz; Rural India".

Such consideration arises because :—

(a) the optimum combination of the factors of production in "Rural India" differ from that of urban sector ;

(b) it would attain rural industrialisation without social repugnance;

(c) an integrated rural plan of multifarious activities would be welcome to the people; and

(d) the physical conditions in India necessitate such planning.

A scylla and charybdis situation has arisen owing to the rising population at the rate of 4-5 millions a year and the unco-ordinated planning of commercial and subsistence crops. There is not only spatial deficits of food grains but also imbalanced applications of productive resources applied to farming and resulting in falling revenues to the cost incurred. The tendency of shift to commercial crops which may deteriorate the food situation can be counteracted, as Dr. Raj Suggests, by :—

(a) fixing a maximum level of competing commercial crops with the foodgrains;

(b) introducing a sort of crop planning and giving a weightage to foodgrain prices; and

(c) fixing the foodgrain quota according to the size of holding with due reference to its total yields.

The multifarious perplexities like rising per capita administrative productivity ratio, and rising cost-output ratio are all to be attributed to low-per capita output caused by various elements like negligence of regional planning, repugnance to scientific farming, inherited social psychology etc. Let us now undertake some of these elements, assuming that :—

(a) farming is a business in commercial economy ;

(b) agriculture is highly specialised, particularly by regions, and is an interdependent phenomenon ;

(c) farming is largely family business ;

(d) farming is a biological business of plants ;

(e) inter-sectoral flows affect agriculture.

Given these assumptions, the investment pattern and the techniques of production should be so suited as to equalise the marginal net revenue with the net cost of employing labour without dragging the marginal labour productivity below the existing level of wage rates measured in terms of wage-goods prices. This difference between potential aggregate output and aggregate consumption if positive or great enough, can be reploughed in agriculture and / or can be flown to industrial magnets in that region. The prevention of the contraction of this marketable surplus can be attained through :—

(a) eliminating all those intermediaries who command a high propensity to hoard ;

(b) introducing a protective or disriminating attitude by the government which should stabilise the aggregate value of the output ; and,

(c) a process in which A/P ratio does not shoot high.

Such nucleus of planning of "democratic decentralisation" through local development programmes has been well conceived by Balwant Rai Mehta Committee provided that his reformative gestures do not mingle with political humdrum.

The sermons on Welfare State have practically become obnoxious. We can well criticise Malthus and the underconsumptionists for their willy-nilly but the annals of history justify the statement of H-W. von leon that "history of man is nothing but a search of bread and butter. All the "isms" of the world and the catastrophic revolutions of our society have been deeply rooted in economic grievances. The colonial impact had been due to economic aggrandisement and the world shall never witness peace until regional and national self-sufficiency is not achieved.

The "cultural heritage of India" of which we are as proud as was Hitler of his moustache and which is cherished in eloquent anthems does not at all mean that cowdung can cope with the challenge of the dynamic changes. The revitalisation of agricultural essentially implies that scientific farming or mechanised cultivation is bound to creep in the barren lands although it may take a lengthy process of time.

The mechanisation of Turkish farming has yielded positive correlations. It is also a truism that studies in Western Europe and in the U. S. S. R. have shown that shelterbelts, which may occupy 4 or 5% of the total land can increase the production to as much as 100% above population on unsheltered fields and can improve the crop quality, provided that proper mechanisation is induced otherwise neither industrialisation of the country nor the equilibrium pace of human facundity would be possible. Land mechanisation changes a primitive production into a revolving process-more specialised and commercial-depending on less labour-capital ratio. Turkish experience during last 7 years is well furnished which, as founded by the University of Ankara, has boosted up agricultural output in multiple.

The practical introduction of Cobb-Douglas production function is and must be acceptable to all. In Canada chemical fertilizers have boosted up agricultural yields. Between 1926 and 1955 farmers in Canada increased their expenditure on fertilizers from $ 6.2 millions to $ 526 millions, an increase of over 800 percent during 30 years interval. Mixed fertilizers were composed of 62 different forms of nitrogen, phosphate and potash. Application of anhyduous ammonia combined with ammonium-sulphate determines a definite growth function in physical output and the most profitable application of one fertilizer nutrient occurs, according to the research observation, where the marginal revenue equals the marginal cost of the added nutrient. This relation of $\frac{dy}{dn} = \frac{pn}{py}$ can be of much use in India although it would remain indeterminate because nature plays a dominant part in Indian agriculture.

The violent fluctuations in agricultural output are, to a very great extent, influenced by the havocs of natural calamities. These fluctuations can be denoted by a family of kinked curves in the time-lag analysis. These kinky curves have an unimaginable impact upon the national distribution and all other related economic activities.

Let us now consider the consumption function and the multiplier effect in our analysis of agricultural vitality. For purpose of this analysis we assume :—

(a) there are time-lags in the working of quantitative multiple;

(b) the marginal propensity to consume will shift upwards with successive autonomous "injections", and

(c) the price elasticity of demand for consumer goods is less than one and so multiplier can be made larger.

The consumption function to the agricultural output suffers from two distinct disadvantages that the acceleration of the total value is not a determinate of the local consumption pattern and that it is surplus output which we can call the multiplicand which normally instead of coming in circular flow is turned either into a held-stock (by those whose propensity to hold is high) or flows out from structural bottlenecks in the absence of a proper village planning and administrative deficiency combined with the social repugnance. This brings not only a pessimistic vision but also open doors for new sorts of social problems especially when it has an orthodox religious sanction. Thus the propensity to save and propensity to consume instead of indicating any positive correlation tend to negative each and mark an equilibrium tendency at the point of zero elasticity. This negative relationship renders it impossible to consider the amplitude of the multiplies because the multiplicand itself tends to be zero. Even the successive "injections" would not bring any appreciable results unless the administrative machinery is strong enough to control all the possible "leakages".

The Harrod-Demar Formula $g = sc$ (g=the rate of growth of net investment, c = capital-output ratio, and s = portion of income that is saved) can yield appreciable results only with non-inflationary deficit financing assuming that there is definitely a time-lag between earning and spending.

The summum-bonum of these observations and the rapid pace of progress necessarily involves institutional changes which can be, as Dr. Ganguli points, compatible "with technological progress and creating new institutions through which the country can adopt itself to technical changes and also adopt them as instruments of welfare".

"FUTURE PATTERN OF LAND REVENUE POLICY IN INDIA"

By: **H. C. SAXENA**

Introduction :—Land revenue is the oldest tax which was found even in Ancient India. It was the mainstay of Provincial Finance till recently. Since it has lost its position as an item of exchequer, the seriousness of the problem has increased. Moreover the failure and ineffectiveness of the recent tenancy legislation has made the situation still more serious and grave. Thus it has become an important problem before the States. Though the Taxation Enquiry commission have suggested recently certain proposals to reform land revenue policy and has suggested that land revenue should be correlated with prices, yet due to certain practical difficulties and financial stringency the recomendations are in the melting pot as yet or may be under consideration with the State Governments or Central Government.

In this paper we shall examine in brief the main causes, which can be held

responsible for the decay of land revenue; its place and importance, the recent trends; main defects ; present day problems; alternative proposals; their inadequacy in the present circumstances and suggestions for the future pattern.

The important factors which can be held responsible for the decay of land revenue as an item of Exchequer are :—The vast changes in agricultural economy particularly the rise in the prices of food grains, the introduction of many new taxes viz. Incometax; Customs, Excise and Sales Tax etc ; the gradual development of Indian trade and commerce, the development of means of communications ; the development of irrigation facilities ; the commercialisa tion of agriculture ; progressive monetisation and the evolution of markets etc.

The vast changes in the Indian Economy led to rise in prices of agricultural Commodities specially food grains. We see during the period 1873–1929 that the prices of food grains fluctuated, that land revenue was steady and land revenue enhancements were of a relative moderate nature and the burden of land revenue declined proportionately. But between 1929-35 the prices of food began to decline and the burden of land revenue began to increase due to the great depression. Again we see a marked change in the burden of land revenue due to soaring prices of good grains caused by world war second. The prices increased more than four times the prewar level, which reduced burden of land revenue drastically. Thus the burden of land revenue fluctuated like a shuttlecock during the period of 1873–1957.

A study of the Budgets of both Centre and later on States, reveals that the proportion of land revenue collected to the total revenue declined gradually from almost two third in the first half of the Nineteenth Century to one third by the time of First World War, to about one sixth in the year 1939-40 and about one twelveth at present. This trend was first steady and later on steepy towards the burden of land revenue assessment. Moreover the share of land revenue to total tax revenue of States, has also declined. The State Budgets reveal the proportion of land revenue declined from 54.8 per cent in the year 1922 to 20 per cent in the year 1952 and increased to 27 percent in the year 1954-56. The slight increase in recent days is due to recent land reforms legislations.

In short this brief examination of the evolution and trend of land revenue policy will serve as a background and will help us to understand the present situation and to chalk out the future pattern of land revenue policy.

Defects :–As regards the defects of the present system we may say that the system does not fall in line with the principles and practices of modern taxation particularly with the principles of progression. The most important feature of land taxation in India is that it is a tax in 'rem' and not in 'personem' i.e. it is a tax on things rather than on person. It is regressive, inelastic and has no bearing with the change in prices, it is unequal in its incidence in different parts of the country and that there is no differentiation in the rates of assessment between the big and small size of land holdings.

To sum up the existing land revenue policy is full of defects.* "It is uncertain in incidence, inconvenient in assessment and collection, unequal in its incidence and destribution, inelastic and far from being benefitting the cultivator who pays the tax, uneconomical in

* Vide Indian Journal of Economics & Agriculture Vol. VIII P. 147.

administration and prejudicial to the growth of capital and improvement in agriculture".

Attempts were therefore made from time to time to remove these defects but in name till 1939. After that a series of tenancy legislation were passed in almost all States. The net result of all these and tenancy reforms was the simplification of tenure in the country; and security of tenures and fair rents. Besides this Punjab introduced sliding scale system to cope with the position caused by price fluctuations. Madras, Hyderabad and Mysore introduced surcharges as an interim measure of taxation in the absence of regular settlement. The aim of both of these experiments was to get larger revenues from higher agricultural incomes but both of them failed to achieve their object due to certain practical difficulties.

Moreover the recent tenancy reforms though attempted to solve the tenancy problem but have failed to achieve the very object of giving security of terms and reasonable level of rents. The reports from various States reveal that "The legislation has produced a result contrary to its expectation." The Bombay tenancy Act which was the ideal legislation has not been effective in its implementation. According to Prof: M. L. Dantwala in Bombay "official as well as non-official enquiries have revealed that the law as it existed failed to provide to the tenants either security or reasonable level of rents."* In Orissa the eviction of tenants was on a large scale which was unprecedented in the history of tenancy legislation. Besides in other States the landlords due to the loop-holes left in the defination of "personal Cultivation", 'upper limit', special techniques adopted by them, personal influence, removing or changing the village records and their personal initiative and strong economic position, have evicted and shall continue to evict unless it has not been checked by the State Govt. In short we can say that so long as an adequate balance between Agricultural and Industrial population is not provided the chronic land hunger will continue and these legislations will not only fail in their objectives but may create new problems to solve also.

Main Problems:—Now the main problems which we have to solve are: (i) the diversity in land revenue assessment, (ii) "Violent fluctuations in agricultural prices and its effects on land revenue", (iii) periodical settlement and resettlement of large tracts, (iv) ineffectiveness and failure of recent tenancy legislation and the failure of the experiments of sliding scale and surcharges which were correlated with price changes.

Thus it is in the context of these main problems that we have to examine the main alternative proposals which have been experimented, proposed and are in the process of implementation by State Govts. The alternative proposals are many but the main are the following:—(1) Sales Tax (2) Agricultural Income Tax (3) Land Revenue correlated with agricultural prices as suggested by Taxation Enquiry Commission.

Sales Tax:—Sales Tax had been introduced very recently by the States. The position to day in almost all the States is that agricultural produce is exempted from sales tax. The proposal is that this exemption on the first-sale be cancelled and may be introduced as an alternative substitute to land revenue on all primary agricultural producers when they sell their crops. The advantages claimed for such a tax are many but insignificant before the objections.

* Vide Indian journal of Agriculture and Economics Vol. XII No. 2 P. 145-17.

The main objections are:—public opinion all over the world is against the introduction oj sales tax on food grains. It will be on the produce sold and not on the total produce. It may thus lead to our old barter system on a large scale secretly with a view to evade sales tax. The yield from this tax would vary as it will depend on prices. It would require to maintain a good number of honest personnel in order to check a good number of accounts of a variable number of factors. It offers plenty of scope for tax evasion. The expenditure involved in the implementation of the tax would be disproportionately high. The majority of Indian villagers are illiterate and therefore incapable of maintaining and handling accounts regularly which may lead to harrassment and at the mercy of revenue officials or sales tax officers. It is against the provisions of our constitution in view of the provisions of Article No. 286c (3) which restricts sales tax to be imposed on goods essential for life, and lastly it will lead to produce other commercial crops than agricultural produce and therefore we are afraid that the food problem may become more acute.

Agricultural Income-tax:—Theoretically such a tax based on principles of progression would be the best, but its practical difficulties are many, which we are afraid may lead to harrassment and arbitrary assessment in the present state of our society. The most important objection is against the exemption limit; if it is too low, it would be difficult for the small and weak peasant to pay and if it is high or too high there will be a loss of revenue to the States. Moreover the reports from many States reveal that the yield from Agricultural Income tax is comparatively low, and therefore it may bring a substantial rather heavy loss of revenue to the States Govts. in these days of financial crises. The Panjab land revenue Committee report has remarked "Agricultural Income tax may be appropriate among literate masses, but it is certainly not suited to a peasantry largely illiterate without accounts and intensely conservative".

Land revenue correlated with agricultural prices

The main recommendations of the Taxation Enquiry Commission for the future pattern of land revenue policy are the following :—

The main recommendation is to correlate land revenue with agricultural prices, but this aim has to be achieved through (1) Survey, classification and initial settlement as an indispensible operation to be carried out in each State. It is only then, that the standardisation of land revenue assessment, which is a pre-requisite for the future pattern of land revenue policy is possible (ii) That the standardised level of assessment then revised State—wise or region—wise at a reasonable interval. This process of standardisation and revision is one of reducing disparity to the extent practicable. (iii) That the details of standardisation will have to be worked out by each State in the context of its own conditions so far current settlement or resettlement are concerned. Standardisation will also necessitate legislative steps for altering assessment during the period of guarantee. (iv) And once the standardisation of land revenue is complete, it will be revised once in ten years with changes in the price levels (v) In revision normal fluctuations up to 25 percent in either direction will not call for any adjustment in the land revenue demand. But if the prices rise or fall by more than 25 percent the land revenue will be

effected for a minimum of 3-1/8 percent (one half anna in the rupee) to a maximum of 12½ percent (Two annas in the rupee) between 26 & 44 percent and above in the rise of prices. But if prices decline reduction in land revenue will be effected from a minimum of 6¼ percent (One anna in the rupee) to a maximum of 25 percent (four annas in the rupee) between 20 to 44 percent and above in the fall of prices" (vi) Normally the basis for measuring prices would be the main food grains and Cereals of a particular region. But in certain regions, the commercial crops may be taken for the purpose. But where there are both commercial and food crops the composite Index number would be taken. (vii) The current period for the first revision would, of course, be ten years, intervening the standardisation and its revision. But for all subsequent revisions, the ten years immediately preceding would be the current period while the ten years preceding the previous revision would be the lease."

Criticism :—If we examine minutely these recommendations of the commission we would be able to find out the following practical and financial difficulties which will come in the way.

The work of survey, classification and initial settlement and revision of the old settlements which were postponed due to one or the other reason, would involve heavy expenditure of a very great magnitude. But in these days of economic planning and financial stringency when there is neither money nor sufficient personnel to carry on even the schemes of top priority of the second plan, how it would be possible to carry out these operations though of great importance but unfortunately not included in the top priority schemes of our national Plan. Hence the State Govts. have to postpone these operations witch are indispensable and pre-requisites for the new pattern in these circumstances for the time being. And if the very basis on which the new pattern is based is being postponed, it means the whole scheme is postponed rather jeopardised.

2. The process of standardisation which is the main basis for assessment, and which is based on the settlement operations, cannot be completed. Besides the aim of standardisation is to reduce disparity as far as possible. But in those areas where marked desparity exists between different areas in the level of assessment and if we change the existing levels of assessment will it not be too heavy for them to pay the changed and standardised land revenue and therefore injustice on them ? Moreover will it not be against the very object of standardisation.?

3. The automatic adjustment of land revenue is full of practical difficulties. The following are the main obstacles :— (i) Frequent and violent changes in food prices would result in frequent changes in land revenue assessment, which in the absence of a net work of honest, trained and experienced officials, would be very difficult to assess. (ii) It would be very difficult to contruct simple, weighted and composite index numbers, in the absence of stastistical bureaus in each State. (iii) In case the prices never rise beyond 25% and continue to be so far for 15 or 20 years and on the other hand the prices fluctuate frequently and violently, what is the remedy to combat such situation with us ? (iv) Besides there is no provision for abnormal situations in the scheme, (a) Suppose the prices of the staple food are always high and commercial crops always low and vice versa (b) or the prices of both the crops are always high or always low (c) or at the time of

revision of the standardised assessment the prices of these products may be always high or low in one State and vice versa in other State (d) or if the price rises or falls say about 100 percent or 150 percent and continue to be so for a longer period etc.

In short all these situations may occur in any State or in all States as they are no doubt abnormal but realistic. But we do not find any suggestion to meet such contingencies in the recommendations of the Commission.

Moreover the old system had to be continued simultaneously to deal with the old features of the settlement viz. when dry land is converted into irrigated and vice versa or land has either deteriorated or becomes uncultivable through natural causes.

Lastly but not in the least is the most practical difficulty i. e. how to make the illiterate and poor masses understand about this scheme? As the scheme depends entirely on prices, index numbers, price movement curves and charts etc., it will be very difficult to make them understand all about this. But if it is introduced it would be difficult to continue it and carry it out successfully for a longer period unless the atmosphere is created.

In short the recommendations of the Taxation Enquiry Commission are, "*no doubt elaborate but expensive, simple but still complicated, adequate but still inadequate to solve certain abnormal situations, uniform but dual so as to solve the residual features of the old system with the help of old methods and therefore to continue old as well as new pattern simultaneosly, certain but fluctuating due to changes in prices and far from reach of the common man.* As such we have to prepare background before we implement this scheme and put into practise. Besides due to financial stringency and economic condition of our country we think it is not practicable to carry on the scheme right now.

It is now essential to review the economic condition of our country in short before we suggest our scheme for the future pattern of land revenue policy. It is because due to financial crisis and for exchange crisis that it will help us to suggest a plan which may be within our means.

Inadequacy of the alternatives :—The alternative proposals as outlined in the foregoing paras are inadequate in view of the financial needs of the State Govt; because the total yield from land revenue is near about 75 crores at present and no alternative proposal suggested and experimented so far except the last which has not been considered and experimented as yet will yield revenue equal to the said amount. That is why the old land revenue system is continuing still in the country in different garbs.

Review of the Economic Condition :— Our economic condition at the end of our first five-year plan was some what better. Our economy was sound and strong enough to undertake a plan of the dimensions of the 2nd national plan. We therefore dared to launch a Second National Plan for the economic development of our country. The aim of all the objects of the Plan is to pave the way or to lay the foundation for the Socialist Pattern of Society in the country.

But if we look at a glance on the different items on which the total outlay will be spent, we can say at once that the percentage spent on agricultural sector is insignificant in comparision to the percentage spent on industrial sector, which is an undesirable behaviour for the basic industry of our country, on whose development the entire economy is based. Any way we

are not concerned with it here. But if we review the progress of the plan we see that the tables are turned. We were nipped in the bud unfortunately in the very first two years of our plan. The economic position of our country entirely changed and our position became a bit critical. The trouble is regarding increasing shortage of foreign exchange resources and rising food grain prices. How it happened is a long story? but we can say in brief that this is all due to improper budgeting of foreign exchange. Had there been a check of imports we would have not faced this situation and our exchange resources would have not run down so rapidly and largely.

As a result we had to take resort to bank credit in order to finance the private and public investment, which put the banking system to considerable strain, and the inflationary effects gripped the Indian economy.

Besides the Report of the Board of the Directors of the Reserve Bank of India recently said, "That the Indian economy during 1956-57 exhibits signs of the "growing strain" imposed by a high rate of investment which was partly deficit financed." The report further adds that the price situation has continued to cause concern. The general index of whole sale prices rose further by 8·3% percent and on the top of a rise of 13.8 percent.The rise in prices was shared by all major groups but was particularly marked in food articles (10.4 percent), Industrial raw materials (7.4 percent), and manufacturers (5 percent). The report further adds that the food prices situation was partly aggravated by an increased tendency to hold food grains with the help of bank credit and partly due to their improved position since 1956. It was partly due to the Govt. Policy towards food grains. That is the Govt. pursuaded itself that the country had solved the problem because of the easing of the situation through two or three successive good harvests and a declining level of international prices.

But now the Government of India has realisd the mistake of improper and unbalanced imports. That is why she has restricted her imports to the maximum; reconsidering the plan for economy and have started an all round "economy drive" throughout the country. She has signed an agreement with U.S.A. to import food grains worth Rs. 175 crores in order to check the soaring food prices and have also extended the Essential Commodities (Amendment) Act for a period of three months to control the prices of food grains in the country.

Thus we have to reshape our plan with reference to the economic situation prevailing in our country so that it may not only solve the problem of land revenue assessment but may bring down food prices; help in reducing food import and may help us to achieve gradually the Socialist Pattern in the agricultural or private sector also.

Future Pattern of Land Revenue Policy

In my opinion the best and most practical method in the present circumstances would be to assess and realise land revenue in kind. Because this will be very simple, elastic, equitable, uniform easy, certain, adequate, less expensive, practicable and within our means. It will not only solve the land revenue problems but will solve the food problem to a certain extent and will certainly bring down the high prices of food grains. It will also help to reduce inequalities in the agricultural sector also, which is the ultimate goal of these economic plans in our country. Moreover it will create back-ground, which is very essential, if we want to achieve our

object of Socialist Pattern of society in agricultural sector or private sector also. It will not only take away the defects of the present system, but will suit to Indian peasants. They will rather welcome it from the bottom of their heart, as they are familiar with it since the days of yore. Besides there would be no financial, administrative and practical difficulties of great magnitude. It will bring uniformity in the land revenue assessment for the first time and will reduce the incidence of land revenue assessment on the poor, who are really poor.

It is natural that there would be diversity in the land revenue features of different States for the time being due to transitional problems arising out of past history or related to local condition. But we propose to bring uniformity on certain basic matters throughout the country, such as the nature of tenure which has already become common Viz. Ryotwari ; the basis and rate of assessment which we would suggest as 25 percent of the gross produce in kind ; the betterment levy or surcharge at a uniform rate either 5 percent on the savings in kind or 1 percent on the gross-produce for local bodies for local purposes; Agricultural Profit Tax or Big Holdings Tax on the principles of progression ; and the water rates or levy from those who utilise water from Govt. sources on uniform rates throughout the country. Thus this will constitute a basic pattern of our future land revenue policy. But in elaborating the principal features of our scheme, it would be convenient for us to deal with them under the following heads :—

(i) Basic Pattern.
(ii) Transitional problems.
(iii) Administrative Problems.
(iv) Conclusion.

Basic Pattern :–The realisation of land revenue in kind will be our chief suggestion to solve the various problems which we are facing today. The basis of assessment may be gross produce, net assets, net produce and annual value etc. whichever is convenient to the States for the interim period.

But Gross produce will be the best basis in the long run, though we might change the technique of assessing the gross produce in future. Land revenue in kind will be assessed on the whole body of the cultivators in a village or group of villages or on co-operative joint farming or agricultural producers co-operative in a particular region or locality. The payment of land revenue in kind may be based either on (i) Cash basis i. e. assessment would be fixed on a cash basis, but the payment would be made in kind and not in cash. (ii) Gross produce basis i. e. a percentage of the produce on each crop and (iii) Co-operative marketing basis i. e. payment through marketing societies. Under this method, the assessee would sell the assessee's grains through marketing society. The Co-op. Marketing Society would give a receipt of the payment of land revenue in kind to the depositor and would mention the rate and amount sold also in it and then it will deposit cash in the Govt. treasury directly after deducting a small percentage as its commission. As it is not possible in all States and in all areas due to the lack of co-op. markettting societies, hence it is up to the State Govt. to decide any method in the interim period but we would like to suggest that Agr. Marketing Societies would be the best method or agency for payment of land revenue in kind as well as collection.

As regards rate of assessment, we suggest that it should be 25% of the gross produce as land revenue in kind

and 5 percent of the gross produce as the transportation charges also in kind. These charges will not be charged from those who shall provide land revenue in kind on the alloted godowns for each area at the appointed time in their own conveyances viz, Bullock Carts, Donkeys, oxen, trucks etc. Besides land revenue, the landholder may sell as much as he can easily spare the food-grains out of his surplus to the State on the same rates.

As we have already suggested that the best machinery for collection of land revenue would be the Co-op. Marketing Society, but we can find out any of the following as our collection machinery, which is easily available in our State viz. Village Panchayats, multi-purpose Co-op. Society, Agricultural Producers Co-operative, Co-op. Joint Farming Society and Co-op. Warehousing Company, in the absence of Co-op. Marketing Society. It is because that co-operation has not covered the whole country and co-op. credit & co-op. marketing has done very little rather insignificant service to the agricultural community as a whole. Hence we have to face the difficulties for some time more, so long as Co-operative Commonwealth is not fully established, which, we hope, will be established if the recommendations of the Rural Credit Survey Committee are implemented in the right manner in all the States.

Agricultural Profit Tax or Big Holdings Tax :—Besides land revenue proper Agricultural Profit Tax or Big Holding tax on higher agricultural incomes or Holdings whose income is above Rs. 3000/- a year; should be imposed. This is necessary because of the greater equality that it will bring in the system as well as it will help us to achieve our object of Socialistic Pattern of Society in the agricultural sector. Moreover due to development schemes and improvement in the method of cultivation the yield will increase in the near future. It is then that either of the tax will bring greater revenue to the State Govts. and make the land revenue progressive.

The assessment of either of the tax may be on cash basis but its payment should be made in kind so that we may be able to form a State Trading Corporation in food gains also in the near future if we desire to form such a corporation in the interest of the country as a whole.

Local Bodies and Land Revenue :—As regards Local Bodies and land revenue, we have to emphasise that our suggestion regarding the percentage of land revenue is mild. We have deliberately proposed this low percentage, so that the local bodies may utilise the margin thus left for local development. The local bodies may impose betterment levy or surcharge on land revenue to meet out capital charges to recover initial expenditure in full or part and maintenance expenditure, or to tax unearned increment or to meet State expenditure on development projects of that area on a uniform rate of 5% of the savings or 1% of the gross produce. Water levy may also be imposed in addition to these taxes cited above—wherever necessary on a uniform rate in all the States.

Advantages :—This scheme will improve the economic condition of the tenants because under this scheme they will have more security, more freedom and fair rents (ii) the scheme will save heavy expenditure which would have otherwise incurred on the settlement operations, standardisation of land revenue assessment and revision of assessment (iii) under our scheme the tenants will get cheap and easy credit for all purposes and therefore we shall be able to free him from the strong clutches of the village

Mahajan, Sahukar or money lender, who provides the bulk of the rural credit now (iv) it will give incentive to the villagers to form Co-operative Joint Farming Societies, Co-op. Farming Societies and will create an atmosphere for Co-operative Commonwealth (v) it will save hard currency worth crores and crores of rupees without exporting but not importing food grains in these days of financial stringency (vi) it will help the govt. to check the rising prices of food grains to a large extent. (vii) It will help the Govt. to have a first hand knowledge of Indian agriculture and food prices and other allied problems also.

In short the scheme suggested can be implemented right earnestly and with great sucess only in those States or areas or regions where co-operative organisations required for it have been working efficiently and that the warehouses or godowns or stores have already been acquired or constructed and where means of communication and transportation are sufficient or socialised or nationalised.

In other States and areas we have to wait so long as we do not solve the transitional problems for implementing our scheme.

As such we propose that in the interim period the same old system of land revenue assessment should be continued where the scheme cannot be introduced right now due to the transitional problems, but with minor change. The minor change is this that land revenue which is now realised in cash may be converted in kind at the conversion rates fixed at each harvest and stored by the Govts. in their godowns. And if co-operative institutions or organisations are not working efficiently or even does not exist, the same may be asked to speed up their work efficiently and new societies should be opened as much as we can and as early as possible. It will not only help the land holder particularly the smaller ones but will prepare the background and create the atmosphere for our long term scheme of land revenue assessment in kind in this period. Now let us see the transitional problems.

Transitional problems :—The main transitional problems are (i) Co-operative organisations (ii) National Co-operative Development and Warehousing Corporation and its auxiliaries (iii) Means of Communication and Transportation. (iv) Administrative Problems. No doubt the transitional problems are many and difficult but we have to face them and solve them boldly. And it is in the solution of these problems that the future stability of our economy especially agricultural economy will depend. Hence the Govt. policy must be directed towards assuring the stability. But the stability is possible only when the State Govt. had enough stock of food grains and administrative apparatus with which to purchase, store and sell the agricultural products at a very large number of centres scattered all over the country. That is why we have suggested the scheme of land revenue assessment and realisation in kind. This small beginning may serve as the basis or foundation in the direction of State Trading in food grains, which we wish must be formed in the near future like other State trading corporations. Moreover food is an important commodity in which the Govt. should make a start and the sooner it is formed the better it would be in the interest of all.

We all know that the transitional problems would almost be solved very soon as the Govt. of India have accepted the recommendations of the Committee of Directors of the Rural Credit Survey

Report of the R. B. I. and have started implementing them. According to the Report "Co-operation has failed but co-operation must succeed". And the essence of the solution or success in the present circumstances is 'State Partnership'. It does not mean only State guidance and State aid, but also of State partnership with co-operatives in credit, in marketing and processing etc. Since the operation of the banking mechanism as a whole have an important bearing on co-op. credit and the institutional development of storage & warehousing is organically connected with the second viz. processing & marketing.

Hence the integrated scheme of rural credit is based on three fundamental principles (i) State partnership at different levels (ii) full co-ordination between credit & other economic activities especially processing, marketing and storing and administration through adequately trained and efficient personnel responsive to the needs of rural population. Now let us examine the main recommendations and find out what transitional problems would be solved and how many remain to be solved?

The main recommendations are regarding (i) 'Agricultural credit' (ii) State Bank (iii) National Co-op. Development & Warehousing Board and its auxiliaries Viz. (a) All India Warehousing Corporation (b) State Warehousing Companies (c) Co-op. organisation & general.

As regards agricultural credit the R. B. I. will constitute this fund for the short, medium and long term loans. The second is regarding establishment of State Bank by Statutory amalgamation of Imperial Bank of India and the major State Banks which has already been established. Its main function would be to endeavour to be responsive to the needs of co-op. institutions connected with the development of credit and especially processing and marketing facilities, to open new branches for cheap remittance of credit at the sub-divisional level specially in those States in which the Co-op. Movement is relatively undeveloped. As such we see that the State Bank has started functioning right earnestly in its field of activity.

The Main functions of the National C. D. Warehousing Board and All India Warehousing Corporation at the Centre and State Warehousing Companies in the States will be to promote planned development of the co-operative processing and marketing of agricultural commodities and of facilities of storage of such commodities, which are of importance to the rural economy on co-operative basis. The Board will give financial aid and accomodation as well as other forms of assistance to such extent and on such condition as may be feasible and desirable to State Govts. and through them to co-op. organisations. It will give subsidies to the co-op. societies to construct warehouses and godowns so that it may run on business lines. It will also co-ordinate the activities of distribution. The corporation will acquire and build godowns and warehouses at places of all India importance, run licenced warehouses and train the necessary cadre and staff for the same. The State Warehousing Company will extend the same in the districts, while State Co-operative Warehousing Company will spread its net work of activities in the Divisional and subdivisional levels, and even in small towns and villages. In this way a net work of Godowns, Warehouses, Marketing and Credit Societies would be spread throughout the country very shortly. A small beginning has been made and targets for the future have been fixed by Agricultural Ministers conference held at Mussorie recently.

"These steps to implement the recommendations of the Rural Credit Survey

in the field of marketing and warehousing will bring revolutionary changes in the agricultural sector. According to the revised targets, 1800 primary marketing societies will be established during the Second Plan. In the field of coop. processing it is proposed to establish Co-op. Sugar Factories, 100 cotton gins and presses and 150 other processing societies. Regarding warehousing, during 1956-57, the Central Warehousing Corporation will establish its warehouses at 22 centres and the State Warehousing Corporations are expected to establish 60 warehouses. It is stated in the Second Five-Year plan the long term goal should be the reorganisation of rural credit and business on a co-operative basis in such a way that within 15 years, 50 percent of the total business including credit, marketing, processing etc. comes within the co-operative sector."

Thus we see that all the transitional problems, except that of means of communication which too will be solved during the period of Second Five-Year Plan, as 29% percent of the total outlay of the plan will be spent on that, will be solved gradually along with the implementation of the recommendations of the Rural Credit Survey Report in the near future.

As regards administrative problems we have not to do much but we have to substitute a new machinery of co-operative nature and based on co-operative principles for the old one altogether. This is because we want to speed up the scheme as early as possible and efficiently. But the most important to note is the success of new the scheme, which will bring about an agrarian revolution in the country with the help of the principles of the self-help and co-existence, depends on planned development of the various agencies and their co-ordination. Therefore, it is not very difficult but it requires rather depends on effective administration. Hence, if we are a bit strict in administering and implementing the scheme, we hope that the success will be on our feet.

Summing up we would like to conclude that land revenue assessment and realisation in kind along with big holdings or agricultural profit tax and betterment levy or surcharges for local bodies will not only solve the present problems of land revenue policy, but may solve the food problem and bring down the prices of food grains also as well as many other ills of the Indian economy to a large extent, provided the recommendations of the Rural Credit Survey, which have been accepted and are being implemented by the States and Central Government are carried out efficiently and successfully and the means of communication and transportation are developed according to our needs, and co-ordination achieved in the various schimes and agencies. It is then and then alone that we shall be able to achieve success and may reach to our goal of Socialist Pattern of Society in the basic Industry Viz. Agricultural Sector or Industry in the future; though we may require to have a third or fourth, 5th and even sixth Five-Year Plans for agricultural development in the agricultural sector only.

SOME ECONOMIC ASPECTS OF AN ANDHRA VILLAGE

By: **M. MANIKYESWARA RAO**

THE purpose of the study is to bring out the salient features of the agricultural economy of a village in Andhra which falls within the working of the N. E. S. Block and the pilot scheme of larger sized co-operative society. It is based upon the interviews with people of some categories. A schedule was used to bring out the significance of family budgets of agriculturists. This study touches the fringe of the problem of village economy but clearly focusses attention on the necessity of undertaking economic studies from the base of our economy in order to make economic planning very effective.

Vempadu is considerably a big village 5 miles south of Nakkapalli (Vishak Dist., Andhra) on the trunk road. The connecting road is half a mile long. It has 820 families of which 586 are agricultural. The population is 3,725. It has an area of 2,700 acres of which 2,000 acres are cultivated. The lands are mostly rain fed. This village was till a few years back a Zamindari village but consequent on the abolition of Zamindaris the government land revenue system is applicable to it.

The ryots of the District of Vishakapatnam divide the agricultural year into three seasons, viz,

Punasa: the period of S. W. monsoon when the staple grains are sown.

Pedda panta: the regular wet crop season from August to December.

Payira: Nov-April when the second dry crop is raised with the aid of S. E. monsoon.

The Punasa crops are very important to the mass of agricultural people as crops like Cambu (Pennisetum typhoideum) and Ragi (Eleusine coracana) constitute their staple food and as such failure of S. W. monsoon spells a great hardship for them.

The village is mostly that of peasant proprietorship with almost no subsidiary occupations. There are nearly 50 tenant families. Many are subsistent agriculturists. It is found that there are about 5 persons, each possessing nearly 50 acres. It can easily be seen that a normal agricultural holding is below 10 acres and the man-land ratio is very low. Further it is found that landless labourers constitute a heavy percentage of the total population. Another feature of the population is that there is a heavy percentage of "Kshatriyas" (Telugu: Rajulu). Men of this caste are given to agriculture work in the fields but their women do not go to work in the fields as it is forbidden by caste. Thus a potential labour force with the agriculturists is untapped. Villages surrounding Vempadu draw on the labour force of it by paying higher wages and in fact rehabilitated many as permanent or temporary tenants on their lands. It is not possible for the author of this article to enquire into the "why" and "how" of labour absorbing capacity of the villages surrounding Vempadu. As a result of this, the effective supply of labour in the village is very costly especially in view of the fact that Kshatriya agriculturist feels the inescapable need of keeping attached labourers on his farm. This is how caste dynamism could shape the agrarian structure of a region.

This village is included in the National Extension Service Block of Nakkapalli.

It is learnt that this village received several benefits from the above service and to name a few; they now have better roads, a few more wells, knowledge of Japanese method of cultivation etc. A critical appraisal of the work done by the N.E.S Block is not attempted herein.

There is a larger sized co-operative working in the village under a pilot scheme consequent on the recommendations of All India Rural Credit Survey. The membership fee for this Society is Rs. 5 and each share is worth Rs. 5. It is a credit society and gives mainly produce loans, short-term loans and gold security loans. The maximum limit of a loan of any type to an individual is Rs. 2,000/- at $6\frac{1}{4}\%$ rate of interest. The amount one can get is arrived at by multiplying the share value by 8. Produce loans must be repaid within 6 months, medium term loans in five equal annual instalments. This type of loan is given for improvement of land, digging wells, pumping sets, renovation of tanks, improvement of fruit gardens etc. Short term loans are given for a year. The value of land in the second case on any unencumbered, immovable property in the last case kept as security must be double the loan value. In the last case for loans below Rs. 500 personal security is enough. This type of loan particularly is facilitating landless labourers and tenants. Gold security loans are not available in the village as there are difficulties in appraising the value of gold. It has been generally observed that agriculturists particularly are quite satisfied with this pilot scheme as they are able to receive loans within one week of their application. To make effective the provisions for produce loans the society is constructing a "pukka" godown for storage. There is considerable conservatism to deposit the produce with the bank but is expected to lose its hold soon.

Against this general background of the economy of the village an analysis of the data collected based on the schedule is given below. 14 heads of agricultural families are contacted at random for filling the schedules.

Table I

Size of cultivated land X Agricultural income of the family. (Main crop being agriculture).

Income Size	Up to Rs. 1,000	1001–1500	1501–2000	2001–2500	2501–3000	3001 & above	Total
Up to 5 acres	1	1	–	–	–	–	2
6–10	–	2	1	–	–	1	4
11–15	–	–	1	1	–	–	2
16–20	1	–	–	–	1	–	2
20–25	1	–	–	–	–	1	2
26 & above	–	–	–	1	–	1	2
Total	3	3	2	2	1	3	14

This table is self-explanatory with respect to the size of the holdings and the income derived therefrom.

Table II

Agricultural Income X Expenditure of family.

Income Expenditure	Up to 1,000	1,001–1,500	1,501–2,000	2,001–2,500	2,501–3,000	3,001 & above	Total
1. Up to 1,000	–	1	–	–	–	–	1
2, 1,001–1,500	1	2	1	–	–	–	4
3. 1,501–2,090	–	1	–	–	–	1	2
4. 2,001–2,500	1	–	1	1	–	–	3
5. 2,501–3,000	–	–	–	–	–	–	–
6. 3,001 and above	–	–	–	1	1	2	4
Total	2	4	2	2	1	3	14

If a welfare line is drawn 8 families fall on or beyond the line showing that their incomes are higher than their expenditure. 6 families fall below the welfare line which fact shows that they spend more than they earn.

Table III

Cost of cultivation on different items according to size of cultivated holding.
(Figures in percentages)

Items Size	Seed	Manure	Hired Labour	Implements	Share	Tax	Water	Others	Total
1. Up to 5 acres.	11.8	14.5	28.1	31.7	11.8	2.1	—	—	100.0
2. 6-10 acres.	9.2	15.4	19.2	22.6	27.3	2.3	0.2	3.8	100.0
3. 11–15 ,,	3.8	8.3	36.3	14.2	31.1	1.4	—	4.9	100.0
4. 16–20 ,,	5.8	17.3	37.5	8.6	25.9	2.6	0.1	2.2	100.0
5. 21–25 ,,	13.3	16.8	55.9	—	---	11.2	2.2	0.6	100.0
6. 26 & above	7.9	9.9	32.6	14.2	29.9	2.7	---	2.8	100.0
Toatal	7.1	13.0	33.9	13.8	26.5	2.7	0.1	2.9	100.0

The expenditure on seeds as a percentage of the total cost of cultivation varies enormously from size to size of the holding. This is because of the following facts:–

1. Acreage of the mango topes and coconut groves are included in the size of the land holding. As these do not requie yearly expenditure on seeds they account for the variations.

2. Acreage obtaining in hilly tracts also distorts the figure.

3. To some extent the figures also suggest that in small holdings land is more efficiently and thoroughly used.

The cost of manure as a percentage of the total cost of cultivation generally increases as the size of holding increases. But in a few cases there are distinct variations tending towards lower costs because of considerable number of live stock on the farm.

The cost on hired labour increases with the increase of the size of holdings but the percentage variation between the small holding and the large holding is not much as generally the attached labourers on different farms do most of the needful work and irrespective of the size of the holding there may be one or two attached labourers occasionally with

their family members. Farmers in groups of 5 and 10 acres incur more expenditure on implements than the others because the subsistent farmers just manage with ordinary (not pukka) implements to ward off the present trouble of purchasing costly ones and consequently spend much on repairs etc. Share to the land lord or tenant or fixed annual wages to the attached labourers forms a greater percentage of the total cost of cultivation in bigger size groups than in smaller size groups.

Tax and water rates generally form a negligible percentage as there are no special benefits or water sources.

Table IV

Expenditure Pattern according to Income groups
(Figures in percentages)

Income group	Food & fuel	Clothing	Housing & furniture	Lighting	Conventional necessaries	Education	Medicine	Soc. & Rel. ceremonies	Entertainments	Other expenditure	Total
Up to Rs. 1000	71 4	13.3	3.2	.8	4.8	–	3.43	1.95	.8	.7	100
1001–1500	73.27	10.81	3 33	1.14	4.8	.91	2.49	2.69	.16	.41	100
1501–2000	55.65	18.55	2.31	1.2	4.94	3.46	4.63	2.78	4.94	1.54	100
2001–2500	57.63	12.3	4.4	.9	8.03	3.92	5.31	3.92	2.00	1.74	100
2501–3000	53.54	11.15	6.69	.81	5.6	2.14	8.92	4.46	4.46	2.23	100
3000 & above	55.23	11.5	2.71	.83	7.29	13.02	5.21	1.56	1.51	1.14	100
Total	60.62	12.33	3.7	.91	6.2	5.3	4.96	2.73	2.01	1.34	100

From the table it can be seen easily that the low-income groups spend more on food and fuel, clothing, housing and furniture than other groups. As income progresses the percentage expenditure on food and fuel and clothing decreases due to the inelasticity of demand for them. In the case of housing and furniture as the rich people build pukka houses and keep good furniture they last long and not much of yearly expenditure be made. The percentage expenditure on lighting does not vary much from group to group as there are no special amenities like electricity in the villlage. The percentage expenditure on conventional necessaries rises as income rises and the same is the case with respect to education and medicine. The propensity to spend on religious and social ceremonies and entertainments seems to be comparatively lower in low and high income groups than that in middle income groups. From this there does not seem much justification in the contention that low income group squander their income on religious and social functions and entertainments.

All classes taken together 60.62% of the total expenditure is spent on food and fuel and 12.33% on clothing. Conventional necessaries figures to 6.2% which shows that habits like tea and coffee drinking and cigarette consumption to name a few are fast getting hold on rural masses. It is distressing to note that only 5.3% of the expenditure is devoted to education. 4.96% on medicine

and 2.01% on entertainments indicate that the villages are to some extent in the habit of going to hospitals and cinema houses in Tuni, a well developed town a few miles off the village. Lack of proper educational and medical facilities seem to offer a number of bottlenecks to its progress.

Table V

Expenditure pattern according to the Size of the family.
(Figures in percentages)

Family Size	Food & fuel	Clothing	Housing & Furniture	Lighting	Conventional necessaries	Education	Medicine	Soc. & rel. ceremonies	Entertainments	Other	Total
Up to 3	—	—	—	—	—	—	—	—	—	—	100
4–6	64.02	13.65	3.67	1.04	4.77	1.59	5.1	2.48	2.51	1.17	100
7–9	56.62	9.26	2.05	.64	9.47	12.35	5.14	1.49	1.28	1.7	100
10 & above	42.78	13.40	12.03	1.06	5.34	10.68	2.67	12.03	—	—	100
Total	60.62	12.33	3.7	.91	6.2	5.29	4.96	2.73	2.01	1.24	100

(1) A family of 4–6 members normally devotes 64.02% of the total expenditure on food and fuel, 13.65% on clothing, 5.1% on medicine. They also considerably spend on conventional necessaries and social and religious ceremonies. The limited character of the family enables it to devote a larger percentage of its income to necessaries of life.

(2) A family of 7–9 members, specially if some are school going children has to spend a considerable part of its income on education, medicine and conventional necessaries. This means squeezing the scarce resources and poor allocation of funds for food, clothing, housing etc.,

(3) The above remarks are applicable to the group of 10 and above members. But there seems to be a relation between expenditure on conventional necessaries and social and religious functions and the size of the family in the direction of proportionate or disproportionate increase of expenditure with the increase of family size.

General Conclusions:

It is evident that as several villages in India this village also is transforming the weak character of the economy into a more healthy and diversified one with the assistance and humble schemes of the N. E. S. and the pilot scheme of larger sized co-operative society. The farmers very contentedly say that they are now relieved from the shacles of money lenders. They resort to different types of loans for agricultural purposes from the society at the right time and repay as and when their labour bears fruit. This has led to an increased and efficient utilisation of land by way of double crops, commercial crops, Japanese method of cultivation, vegetable gardens etc. They have the advantage of a big commercial market at Tuni, nearby. But the marketing is mainly confined to commission agents. So they emphasise on the need of a co-operative marketing organisafion linked with the existing credit co-operative. They utilise the services of the N. E. S. Block whose headquarters is nearby. Inspite of all these they speak with a vein of dissatisfaction as they have no

reliable water sources. Many have suggested drawing of channels from the Thandava river, flowing a few miles away from the village. It is not possible for the author of this article to appraise the suggestion but what seems striking is unless the agriculturist is provided with reliable irrigation sources his position cannot be substantially bettered by any scheme of development and so this remains a formidable obstacle to rural development.

A MODEL VILLAGE IN ANDHRA PRADESH

By : **D. SURYANARAYANA RAO**

1. **Introduction** :—Madakasira Block was one of the 22 National Extension Service Blocks which were inaugurated in Andhra State for the first time on 4-4-1954 (Telugu New Year's Day) six months after its separation from the composite state of Madras. This Block is at the one end of Andhra State just along the Mysore border in Anantapur District. It extends over an area of 270 Sq. miles and contains a population of 72,500. There are 38 main villages and 146 hamlets in this Block. It is one of the most backward areas in Rayalaseema which itself is a backward region in Andhra State. A portion of the Block was there even previously under the Firka Development Scheme started by Late Sri T. Prakasam when he was the Chief Minister of Madras during the year 1946 and a few useful developmental works had been executed in some of these villages on contribution basis under this old scheme of Rural Reconstruction which was merged with National Extension Service in 1954. The first set of 22 Blocks was started only in such areas that were already selected for intensive rural uplift work under the Firka Developments Scheme. This Block was inaugurated by the then Collector of Anantapur Sri N. Bhagvandas, I. A. S., at public functions arranged at Madakasira and Kallumari on 4-4-1954.

2. **Villagers' Enthusiasm** : The response from the villagers to undertake various types of developmental works and adopt various improved methods was quite encouraging and the enthusiasm exhibited by them at most of the places was spontaneous. This was evident from the whirlwind tour undertaken by the Block officials in May and June 1954 in order to assess the felt needs of different villages. This attitude on the part of the villagers was taken the best advantage of and for the first time in Andhra State a Community Mela consisting of an exhibition, group tournaments, weight lifting demonstrations, cattle show, baby show, spinning competitions, literary competitions, fancy dress, dramas, cultural entertainment programmes etc. was arranged on a grand scale for a period of three days at Madakasira which had never before witnessed such attractive and interesting functions and huge crowds taking part in various activities and programmes. The public of the Block contributed an amount of about Rs. 2,500/-, a major portion of which was spent towards prizes which were distributed by Sri N. Sanjeeva Reddy, the then Deputy Chief Minister at the closing function on the third day. The Mela was organised with the sole purpose of giving the widest possible publicity for the National Extension Service Scheme in the most effective manner and to create an urge in the minds of the village-folk for the betterment of their own places

and it can be said definitely that this purpose was well-served. Wide publicity was given to the various works and schemes proposed to be executed in the one Model Village proposed to be selected for the entire Block.

3. Selection of The Model Village :— There were demands and requests from the village leaders of a fairly good number of villages that their place should be selected as the Model Village and these were followed by assurances to do their best in successfully executing all the works and schemes as a result of which the selection of this Model Village became really a very difficult task. Finally the matter was placed before the Block Planning and Development Committee which finally approved the proposal of the Block Development Officer to have Basavanapalli as the Model Village of this Block for intensive and concentrated work in all directions. The main considerations that weighed in making this selection were the scope for the all-round development of the village as well as the co-operation and enthusiasm of the villagers. Basavanapalli is a main village, though a small one, on the road side sixteen miles from the Block Headquarters. It has got a population of 1000 only. There is a lot of open space belonging to the Government just at the entrance of the village. There are some good ryots who are interested in the welfare of their own village.

4. Works Programme :— Though the works programme was commenced during the year 1954-55 itself, it was actually implemented during the next two years i. e. 1955-56 and 1956-57. The following is the list of works constructed in this Model Village during these two years under the National Extension Service and Community Development Programmes on contribution basis. The villagers' contribution ranged from 25% to 50% in the case of all these works and a major portion of this was realised in the form of labour and materials (stones, bricks, slabs etc.). There was no Panchayat Board to contribute a portion of the estimated cost of these works in the form of cash. So it was the organised effort that was responsible for the successful implementation of the works programme at this place.

1. School building.
2. Reading Room.
3. Park.
4. Children's slide.
5. Pucca Drains.
6. Metalled road.
7. Gravelled streets.
8. Culverts.
9. Body walls.
10. Platforms and parapet walls for 3 drinking water wells.
11. Public bath rooms for Harijans.
12. Cattle water troughs.
13. Dust bins.
14. Public latrines.
14. Play ground.

The total estimated cost of these works is Rs. 23,500/- while the total Government grant paid is Rs. 14,300/-. The balance of Rs. 9,200/- is realised by way of contribution from the villagers in various forms. The above list of works executed clearly shows that substantial development on the construction side has been done under 'Education, Social Education, Communications, Health and Sanitation' etc.

5. Other Schemes : Besides the above mentioned works programme, the below mentioned amenities (other than works) have also been provided in the village since the inception of the scheme.

1. Panchayat Board.
2. Adult Night School.
3. Village Library.

4. Children's Club (with books and play equipment).

3. Recreation Centre (play equipment and musical instruments).

6. Radio.

7. Stud Bull.

8. Stud Rams.

9. Poultry Farm.

10. Maternity Centre.

11. Women's Welfare Centre (with a sewing machine).

12. Carpentry Training Centre. (With 12 Trainees).

13. Supply of improved Agricultural implements to the Society.

14. Fisheries development.

15. Potato Cultivation.

16. Japanese Method of paddy cultivation, and fertiliser demonstration plots.

17. Private borehole latrines.

18. Smokeless chullas.

19. Fruit and Vegetable gardens.

20. Hundi boxes.

21. Teaching and Craft equipment for the Elementary School.

22. Oil engines and irrigation wells (under loans programmes).

23. Berkshine White Pigs.

The above list of achievements shows that tangible work has been done under Agriculture, Animal Husbandry, Health and Sanitation, Women's Welfare, Cottage Industries and Co-operation.

6. Agricultural Development: Most of the ryots in the village have been induced to use the improved strains of paddy, Korra, Ragi, Groundnut etc. and to utilise the improved agricultural implements like Iron Ploughs, Bund Farmers, Ridge Ploughs, Green Manure Tramplers, Japan Push-Hoes etc. They have also taken up the line planting of paddy, inter-cultivation, vegetable growing and compost making. During the year 1956-57, two thirds of the total area under paddy in this village was Japan Method of transplantation only, though broadcasting was previously in vogue in these parts. The ryots have realised the benefits of these improved agricultural practices.

7. Important Functions Held In The Village: In the last week of April 1956, a three day Community Mela was celebrated simultaneously along with the first Village Leaders' Training Camp on a large scale. Thousands of men, women and children attended the various functions, took part in the competitions and enjoyed very well the cultural entertainment programmes that consisted of dance, music, Harikathas, Burrakathas, film shows, fancy dress, mimicry etc. The pandals and exhibition stalls etc., damaged as a result of the heavy rain on one of these days could be re-erected within no time with the active co-operation of villagers who were very enthusiastic about all these activities. A shield was presented to the Gramseva Sangham of this village by the District Collector, Anantapur, who presided over the closing function of these celebrations and congratulated the villagers on their excellent achievement.

8. Visits of Distinguished Persons:— Sri Kala Venkata Rao, Minister for Planning, Government of Andhra who visited Basavanapalli Model Village in July 1956 has been pleased to remark in the Visitors' Book as follows, "A grand achievement - I am so glad". Sri B. N. Jayasimha, I. A. S., Collector, Anantapur visited this place on 6-9-1957 and has recorded that "Work has been done on all sides and it is generally good". Sri B. M, Pansare, B. Sc., (Ag.) Vice-Principal of the Block Development Officers' Training Centre, Himayat Sagar, visited this place in October 1956 and he has expressed that the enthusiasm exhibited by the villagers is excellent.

9. **Welcome to co-workers**:—I would like to take this opportunity to welcome my co-workers in the field of Community Development to pay a visit to this Model Village of ours and offer useful suggestions to further develop this place so that it will be able to serve as a real Model Village and be able to answer effectively the critics of these National Extension Service and Communtiy Development Programmes which are serving the real needs of the rural areas in the most fitting manner possible in spite of the defects and loopholes that are unavoidable in any scheme and in any department. If our country, the stronger roots of which are in the numerous villages that are neglected for the past few centuries, is to develop, it is absolutely essential that these rural reconstruction measures which touch the real heart of the rural areas should be spread throughout the length and breadth of this ancient land of ours at the earliest possible date.

ADULT EQUIVALENTS

By: **Dr. P. C. BANSIL**

TODAY when Food problem has again came to a head and when efforts are being made to project the Food requirements of the country for the coming of 10, 15 or even 20 years, a correct knowledge of adult equivalents becomes extremely necessary.

We know from our everyday experience that grown ups consume more food than children, the old or even women. If the quantity consumed by an adult is taken as one unit, the proportion of the unit which represents the consumption levels of other categories of people is known as adult equivalent. A knowledge about adult equivalents is very helpful for a study which deals with food consumption levels in a country. It is, however, a matter of regret that no such investigation has been made in India on any scientific basis. By and large we will have to depend on the work in Europe. By paying due regard to the conditions prevailing in India, we may be able to reach some satisfactory results.

Lusk[1] whose co-efficients are used extensively all the world over did the pioneering work on the subject. The League of Nations also addressed themselves to the question in the forties. Starting from 1932, three important observations were made by them within a period of seven years.[2] These results along with those of Lusk have been summarised in Table. I.

Table I

Conversion factors for consumption units

Age Group in Years	Sex	Consumption Unit: Lusk's co-efficient	Consumption Unit: League of Nations Scale
Below 1	Both	Nil	
0–2	,,	—	0.2
2–3	,,	—	0.3
4–5	,,	—	0.4
Between 1 & 6	,,	0.50	—
6–7	,,	—	0.5
8–9	,,	—	0.6
10–11	,,	—	0.7
Between 6 & 10	,,	0.70	—
12–13	,,	—	0.7
Between 10& 14	,,	0.80	—
14–59	Male	1.0	1.0
14–59	Female	0.83	0.8
60 & above	Both	—	0.8

1. Quoted by Radhakamal Mukherjee, Food Planning for Four Hundred Millions, *op. cit.* p. 23.

Also see Agricultural Labour Enquiry, *op. cit.*, p. 32.

2. Quarterly Bulletin of Health Organisation, Vol. 1, March 1932, pp. 480 and League of Nation's Publications; Relation of Nutrition of Healthy Agriculture and Economic policy, Geneva, 1937, p. 243, and Guiding Principles for studies on the Nutrition of Population 1939.

It would be of interest to note that there is nothing sacrosanct about the various co-efficients. Dr. Radhakamal Mukherjee as well as the recent Agricultural Labour Enquiry have worked on the basis of the co-efficients evolved by Lusk, while the Indian Council of Medical Research have used those suggested by the League of Nations in 1932.

In order to understand the significance of these co-efficients it would be better if they are converted into man values on the basis of age structure in a particular census year which may be taken as 1941 for the purpose of this study. On the basis of Lusk's co-efficients, a population of 100 persons is equivalent to 80.03 adults [1] which in accordance with the scale laid down by the League of Nations, it comes to 74.946. The figure would vary from 64.4 to 102 [2] according to subsequent League of Nations Publications. Since food consumption habits of people vary according to climate and many other complex factors like economic conditions, it becomes rather difficult to accept any of them without correlating them to the particular conditions prevailing in India.

Madhava Enquiry

Althongh not comprehensive, some stray efforts have also been made in India. Prof. K. B. Madhava analysed the family budgets of about 25,000 working class Delhi families whose income was between Rs. 60 and 80 per month. His conclusion was that if a male adult spends Re. 1/- on food, the expenditure by an adult female, a minor boy as well as a girl (both under 17) would work out to Rs. 0.75, 0.33 and 0.385 respectively.[1]

These ratios on the very face of it would seem to be far from true. For purposes of food consumption, every child above 14 is generally taken as a full adult. It would be wrong to say that a boy of 16 years or even 15 consumes some one third of an adult. As the study of Prof. Madhava was restricted to a small area and that also to a particular class of people, it was bound to lead to incorrect results. Again, the basis of his enquiry was the expenditure on total food and not the actual consumption of various cereals. Such an investigation can hardly give an idea about the consumption of cereals among people in the various age groups. Foods other than cereals being normally costly, higher expenditure on food in a particulor class does not necessiarily mean larger quantitative consumption of the total items and vice versa.

Other Studies

A small enquiry was also conducted by the Indian Statistical Institute at Giridih in 1495. The quantity of food consumed by an adult male of 30 years was considered as one unit. It was found from the actual measured consumption of rice of 253 persons that an adult equivalent was about 78.9[2] percent.

After a study of the existing data, Dr, Baljit Singh also concluded that on the basis of 1941 age structure adult equivalent for India would be 76.7[3] per cent.

1. Dr. Radhakamal Mukerjee worked out the 'Man value' as 83.5. This in accordance with Lusk's Co-efficients for 1931 population, may either be due to a change in the age structure or because he took the co-efficient as 0.7 for all children below 15.

2. *cf.*, General Report No. 1 on the First Round, National Sample Survey, *op. cit.*, p. 72.

1. Presidential address delivered by him at the Statistics Conference of 33rd Indian Science Congress, 1946.

2. General Report No 1, *ibid* p. 72.

3. D. Baljit Singh, Population and Food Planning, *op. cit.*, pp-11-12.

There is yet another scale which was formulated by Cathcart and Murray on the authority of certain experiments conducted by them.[1] They were as given in Table II.

Table II

Food consumption Co-efficients of Cathcart and Murray.

Age & Sex	Co-efficient	1941 percentage age structure	Weighted Co-efficient
0 - 1	0.2	2.3	0.46
1 - 2	0.3	2.5	0.75
2 - 3	0.4	2.7	1.08
3 - 6	0.5	9.0	4.5
6 - 8	0.6	5.5	3.3
8 - 10	0.7	5.1	3.57
10 - 12	0.8	4.7	3.76
12 - 14	0.9	4.3	3.87
Female above 14	0.83	30.9	25.64
Male	1.00	33.0	33.0
		100.0	79.93

Again, Dr. Aykroyd suggested certain scales of co-efficients on the basis of caloric requirements. The allowances originally recommended[2] by him in 1941 were subsequently amended in accordance with the findings of the Nutrition Advisory Committee of the Indian Research Fund Association in 1944.[3] Both the scales are shown in Table III.

Table III

Age Group and Sex	1941 Co-efficient	Revised Co-efficient
Adult male over 14	1.0	1.0*
Adult female over 14	0.8	0.9*
Adolescents 12 to 21	–	1.0
Children 12 and 13	0.8	–
" 10 and 11	0.7	–
" 9 to 12	–	0.8
" 8 and 9	0.6	–
" 7 to 9	–	0.7
" 6 and 7	0.5	–
" 5 to 7	–	0.6
" 4 and 5	0.4	–
" 3 to 5	-	0.5
" 1 to 3	0.4	0.4
" 0 to 1	0.0	0.0

*The adult under the revised scales is considered as above the age of 21.

1. Quoted by Dr. W.R. Aykroyd, Human Nutrition and Diet, *op. cit*, pp. 29–30.

2. Health Bulletin No. 23, Third Edition, W.R. Aykroyd, Government of India.

3. *ibid.*, Fourth Edition, V. N. Patwardhan and S. Ranganathan, 1951. p. 5.

An examination of the two scales given in Table III would show that the revised one has been brought more in line with the Indian conditions. The consumption of both males and females in the adolescent period 12 to 21–has been taken as unit. Most of the females give birth to children in these years and it is common knowledge that during pregnancy and lactation, the needs of a woman are even more than a man. The co-efficient for adult females has also been raised to 0.9 from 0.8. This should be enough to remove any error on account of pregnancy even after 21.

Again, the allowances have been raised by one step after the age group 1 to 3. There are instances where children below the age of 1 year start using cereals. Since after the first year a majority of our children start living only on cereals, it would be quite reasonable to assume that the consumption of cereals among children is much higher than that in the European countries.

Dr. Baljit Singh while commenting on Dr. Aykroyd's 1941 co-efficients pointed out that co-efficient for adult females should be raised to 0.85 and that for children reduced a little.[1] The modifications made in the revised co-efficients quoted in Table III would, perhaps, meet all possible objections that might be raised against others.[2] For the purpose of our present study we would, therefore, be working on these scales.

1. Dr. Baljit Singh,*op.cit.*, p. 11

2. During the whole of the rationing period, the basis of calculation adopted by the Government of India was very rough. Children below 10 years of age formed roughly 28 percent of the total population according to the three census reports 1911, 1921 and 1931. All of them were considered as equilvalent to half the unit. Others above 10 including adults were considered as one unit each. This worked to 86 percent. It would on the very face of it seem to be a rough estimate. It was still considered as a very conservative one because it was stated that all children above the age of 8 consume equal to full adults (Policy Statement of the Government of India, *op. cit.*, The Times of India, July, 19, 1949).

Table IV

Adult equivalents on the basis of revised co-efficients given in Table III

Age Group and Sex.	Revised Co-efficient	1941 Census Percentage population	1941 Census Weighted Co-efficient	1951 Census Percentage population	1951 Census Weighted Co-efficient
Children					
0–1	0.0	2.3	0.0	3.3	0.0
1–3	0.4	5.2	2.08	4.8	1.72
3–5	0.5	6.0	3.0	5.2	2.60
5–7	0.6	5.8	3.48	5.2	3.12
7–9	0.7	5.3	3.71	5.0	3.5
9–12	0.8	7.2	5.76	6.9	5.52
Adolescents 12–21	1.0	17.5	17.5	18.0	18.0
Male adults over 21	1.0	26.0	26.0	26.8	26.8
Female adults over 21	0.9	24.7	22.23	24.8	22.32
Total		100.0	83.76	100.0	83.58

It would be seen from Table IV that on the basis of 1941 age structure, adult equivalent works out to 83.76, while for the 1951 census, it slightly falls down to 83.58. With a reduction in infant mortality and better health conditions, it is possible that the percentage of small children and older persons (whom, of course, we have considered as consuming equal to full units) will increase. This would mean a lesser food consumption. Even if we ignore all these factors, we can safely assume that adult equivalent in India should in no case be more than 84 percent.

DAIRY INDUSTRY*

Part III

By: **Dr. R. N. GOVINDASWAMY**

Preventing illness in the dairy herd

AMONG the risks which confront a dairy farmer at all times is the possibility of economic loss through the inroads of infectious diseases, minor ailments and accidents which may affect his dairy herd. The herd owner who is well informed concerning the principles of disease prevention can do much to prevent illness from entering the herd and he can also, through effective measures of herd sanitation do much to reduce or eradicate a disease or ailment once it has appeared in the herd. The guide to the principles of disease prevention are 1. keeping premises in sanitary condition, 2. preventing illness through good management, 3. rendering first aid to sick animals, and 4. controlling infectious diseases.

1. Keeping premises in Sanitary Condition

Keep barn and lots clean. Remove manures and litter from the stable regu-

* Continued from August 1956 issue of "Rural India".

larly. Scrape or sweep the walls and cellings of all pens and stables twice a year and follow with a heavy coat of white wash or paint. Keep all lots about the barns graded so that water drains off quickly. Provide good feed and clean water, protect herd from neighbourhood infection. Dispose of dead animals promptly and disinfect barn after disease has occured. At present, cattle are not housed in sanitary buildings and are tied often in the open, the manure is kept close to the cattle-shed and even is allowed to be trampled by the animals, the urine is allowed to soak into the floor, good feed and clean water are rare, and dead animals are not disposed of properly or speedily.

2. Preventing illness through good management.

Satisfy nutritional needs by good mangement. Good management from nutritional standpoint consists in ensuring an adequate intake of nutrients the year round. Protect animals from extreme weather. Avoid harmful materials. Cattle frequently swallow nails, pieces of baling wire, staples, stones, cinders, and bits of wood which may be mixed with the feed. Sharp objects such as nails and wire frequently lodge in the reticulum, the second compartment of the stomach, which is located close to the heart. Fatalities often result from punctures of the reticulum and heart.

3. Rendering First Aid to Sick Animals

In many cases, serious illness may be avoided by rendering first aid treatment. The first aid treatments are : isolate the animal ; observe animal closely ; note all the symptoms in order that you may determine, if possible the cause of illness; reduce feed supply ; keep animal comfortable and give laxative if necessary.

4. Controlling Infectious Disceases

Some of the chief diseases and ailments of dairy cattle are briefly described here so that every dairy farmer may be informed concering the nature of these ills and take steps in their control. It is to the mutual interest of both consumer and producer of milk and meat that diseases of an infectious nature which might be carried by these food products, be controlled and eradicated.

Brucellosis—This is a highly infectious disease which spreads rapidly from one animal to another. It is characterized by the birth of the foetus, or developing calf, most frequently during the fifth, sixth, or seventh month. The foetus is usually born dead.

The disease spreads through 1. the introduction of infected cattle into the heard, 2. through contaminated feed and water, and 3. through liking or eating of the diseased animals. The inroads of brucillosis may cause disastrous losses to the dairy farmer because of 1. loss of the calf crop, 2. reduced milk yields, and 3. the possibility that some cows may not readily conceive or may become sterile following an abortion caused by brucillosis.

No effective curative treatment for brucillosis has yet been found. Control consists in prevention, that is evoiding the introduction of infected animals into the herd and carefully conducting sanitation measures in the care of the hard.

Tuberculosis—This disease effects the lungs or almost any of the organs or tissues of the body. It is caused by a specific germ which may be transmitted from animal to animal. There are usually no outward symptoms until the disease is in its most advanced stages. The only certain and practical method of ascertaining, whether or not. animals in the herd are affected, is to have a competent veterinarian apply the tuberculin test. There is no known curative method for treating the disease

in cattle control and eradication consists in destroying the animals which have been identified as reactors by the tuberculin test.

Mastites :—This term is usually applied to an infectious disease of the udder which is caused by the entrance of certain bacteria through the teat canal. The infection is spread from one cow to another by the hands of the milker, and by soiled bedding or floors on which milker has discarded milk from one or more of the affected quarter. The first indication of the disease is thick, stringy or lumpy milk which clogs strainers. As the condition becomes worse, one or more quarter of the udder may become hard, with an inflamed appearance and the cow may have a high fever with loss of appetite. If not corrected. the disease often results in loss of the affected quarters and the cow may become unprofitable. The best way to combat mastites is through an intelligent sanitation programme which is scrupulously observed at every milking.

Plan Programme

The farmers at present are scattered throughout the country. They can be brought under a planned area so that they can be within the easy reach of the technical and administrative personnel. Some such planned areas may be far from towns and others in and near towns. Those that are far removed from towns cannot sell their milk in liquid form unlike those near towns. Therefore the farmers in such areas can only convert their milk into its by-products and market them.

Creameries and milk drying Plants

12 Co-operative creameries and seven milk drying plants envisaged in the second Five Year Plan can be located in these planned areas. A dairy farmer can choose any of the following markets :— 1. Sell to pasteurising plant for use as fluid milk. 2. Bottle and sell his own milk either raw or pasteurized. 3. Sell milk to a condensary or creamary or milk drying plants. 4. Separate the milk and sell cream to a creamery or other dairy plants. 5. Churn the cream and sell butter in a nearby town. With the skimmed milk left out, the farmer can feed his calves or chicken or hogs if he may have in his farms and thus diversify his farm managements or sell it to the milk drying plants where they can be converted into condensed, evaporated and dried products.

Skimmed Milk

"Skimmed milk is nutritionally the most valuable part of the milk. Comparison between normal milk and skimmed milk is as follows :—

	Normal milk	Skimmed milk.
1. Water	87.1%	90.5%
2. Butter fat	3.9%	0.1%
3. Proteins	3.4%	3.57%
4. Milk sugar	4.75%	4.95%
5. Ash	0.75%	0.78%

Not only is the most of the protein of the milk left in the skimmed milk, but this protein is of the highest quality for human or livestock feeding. Skimmed milk is valuable food for human consumption since it contains everything in milk except the butter fat and the accessary elements in the butter fat". (Encyclopaedia Britannica Vol. 6 P. 981)

Handling Milk

Milk is an article of food that is easily contaminated. The micro organisms that contanimate milk are 1. bacteria 2. yeasts 3. molds 4. viruses and 5. bacteriphage. Most of the bacteria that get into the milk are not harmful to the

person who consumes it. A certain group, known as pathagenic organisms are extremely harmful and endanger health. Examples of harmful bacteria that are the causative agents of disease and have been found in milk are 1. berthalla typhosa producing disease known as (typhoid) 2. Brucella abortus and B. suis (undulent fever) and B. Mulitensis (malta fever) 3. Streptococus pyogenes (Septic sore throat) 4. Mycrobaeterium tuberclosis (tuberclosis) and 5. M. aurens, through its toxin produce (food poisoning). "Milk is an effective carrier of disease as T. B. and typhoid fever, so a way of making milk safer had to be found. A law was passed which made it an offence to sell for human consumption any milk from a diseased cow. It was found that milk from cows which have been tested for T. B. and found free could still carry the germ of other diseases. The only way of ensuring that milk was reasonably safe was to insist that it should be "Heat treated" that is pasteurized" (Book of knowledge vol. 5 Page 207). If the process of pasteurization of milk is performed properly it makes the milk entirely safe for consumption and does not affect its flavour or nutritive property.

Milk Supply Union

Thirty six milk supply unions are en-envisaged in the Second Five Year Plan. There are already many milk supply unions operating in some towns. The author is aware of one "Salem Co-operative Milk Supply Union", Salem. This union had purchased in the month of March, 1956 72,625 pounds of milk at Rs. 0-2-9 per pound and sold 66,689 pounds at Rs. 0-3-9 per pound. It gained Rs. 3,147-13-0 in that month. There was a surplus of 5,936 pounds of Milk which was converted into its by-products and sold. From the surplus milk the union sustained a loss of Rs. 147-4-8. The problem here is the surplus milk of 5,936 pounds. The union could not help this surplus because they were unable to meet the view point of the consumers. On account of their surplus they rejected full amount of milk produced by the members, so much so the producers were put to a loss and were discouraged to produce more. A well organised co-operative must produce savings to the producers. The producers are weak as marketing organizations. To meet this problem federations of dairy co-operatives were developed in well advanced countries to increase the farmer's bargaining power and secure high prices for him to widen markets and to improve, grade, standardize and advertise dairy products.

It is hoped that this point will be remembared when implementing the plan. In India, milk industry is in the hands of ignorant men who are not organised. The Government will have to come to their rescue and efford them gainful facilities. An extract is reproduced below to show how authorities in advanced countries have moved in the matter.

"Governments all over the world have given aid to the dairy industry in the improvement of technical process, in the marketing of products, and through tariffs, bounties and stabilization plans to increase the price to the producers. They have also set up certain quality standards pertaining to dairy products. The regulations pertaining to quality and grades have protected the consumer in the same manner as the pure food laws and in most instances the primary purpose at the back of these regulations has been to afford such protection and to place competition between manufacturers and dealers upon an equal basis".

(Encyclopaedia of Social Science Vol. III-IV Page 693).

THE VILLAGE ROAD

By : **IQBAL AHMAD**

INDIA is a land of villages. It is here that more than 80% of the people live. These villages mostly lie miles away from the main highways and are connected with poor level katcha village roads. In fact, these so-called roads are only bullock cart tracks that run across fallow fields and useless barren land winding its way to the village. With constant use and hard wear and tear these roads develop ruts. The poor bullocks have to put in all their strength to navigate these roads. These extra strains shorten the lives of the animals considerably.

Such roads are open to traffic only during the dry seasons of the year. During the monsoon when the fields get flooded the road looses its existence. The villages then are converted into a stream of mud and mire and no vehicular traffic is possible. The only way to the outside world is to wade through ankle or knee deep stagnant water precautiously balancing oneself at every step to keep steady. It is in the rainy season when the doctor is needed most in the villages and he is far away in a town and is unable to get to his patients in the hour of their need because of the pitiable and precarious conditions of village roods.

It was proper therefore that the Community Development programmes and plans gave correct emphasis on the construction and batterment of roads. But, at times, in their enthusiasm to gain publicity or in their wild race to complete a fixed paper target the authorities go too far in the matter of road construction which leaves a bad and lasting effect on the rural mind.

Some Minister is called to preside over a village function and the villagers are persuaded to construct a kacha approach road and given to understand that it would be metalled in due course. To make the work easy and also to finish in time, the approach road is made by filling high the earth, pressing and levelling, while no culverts or bridges are provided as they require technical assistance and guidance and thus no outlet for rain or flood water is provided. The village people are goaded to help in the construction of the road because the road is for the whole community. The old and the young work shoulder to shoulder for weeks and months to complete the road in time under the hot and blazing Indian sun. At least the road is completed.

The big day arrives when the Minister comes to the village in the big State car followed by a hoard of policemen, social workers and politicians. The fleet of of cars slowly moves down the village road raising clouds of dust. The villagers are happy with their achievement. The Minister and his party have a word of praise for the villagers and he goes away after presiding over the function and light refreshment. The simple village people who had toiled so hard had been given to understand that they would get a fine metalled all weather road. But nothing happens. The authorities go back to their deep slumber once again, after creating a good impression of their achievements with the Ministers and other top officials and also receive due credit for the same.

The rains come, the katcha road stands a few light showers, but with the intensity of the monsoon and the accumulation of rain water the road cannot stand the pressure of water and breaches are formed. Slowly, portions of the katcha road are washed away by the pressure of water till only a few yards of earth

work remains to serve as a fine monument of the hard toils of the people and their achievement.

Somebody in the village is on his death bed but the doctor cannot reach in time. Somebody's son has broken his arm and has to be carried to the hospital in town on the shoulders ; the poor village people reach the hospital nearly half dead and dazed with pain. A surgeon is badly needed to attend a difficult labour, he reaches the village hours too late.

By such thoughtless acts on the part of the administrators and local leaders, the villagers are sure to loose their hearts and faith and will be reluctant to take any part in the future development work of the community sponsored by them.

It is high time, the people at the helm of affairs should be wise enough to realize the bad effects and consequences of bluffing and cheating the villagers often with the motive of serving their own ends.

The roads are the blood streams of village life. They bring the villagers nearer to the towns. It is wiser to go slow than to rush through a programme. It is better to construct fewer but permanent type of roads than to waste huge labour force on useless katcha roads that would hardly stand two monsoons. This labour could be utilised in a better and more profitable manner by the construction of something of a permanent nature. If stone chips are not easily and cheaply available in an area for the construction of a metalled road, why not burnt bricks or jhama be utilised for such village roads. The jhama can easily be prepared in any village and such roads are of more permanent and lasting nature.

AGRICULTURAL CO-OPERATIVES IN BRITAIN

By : **J. A. B. HAMILTON**

AGRICULTURAL Marketing Co-operative Societies in Britain cover a wide range of products and are markedly successful, although the first of them was not founded until the eighteen-eighties.

At that time they consisted of dairies for the making of butter and cheese in isolated parts of the country too remote from large towns for milk to be conveyed there to be sold in liquid form. Other societies followed for the marketing of eggs, poultry, bacon and market garden produce. By 1920 the total turnover had risen to £7,500,000, but thereafter came a setback, and it was only after World War II that co-operative marketing took really firm root in Britain. The grand total turnover of all societies in 1946 amounted to £107,958,643.

The fact of a market on the doorstep, and the traditional individualism of the British farmer, were responsible for the slow growth. It was experience of Government trading in World War II which taught farmers the immense benefits of organised marketing and made them more ready to accept co-operative methods.

Eggs And Poultry

As it happens, the dairies have not developed, for since 1933 a statutory body, the Milk Marketing Board, has been responsible for the purchase of all milk at a guaranteed price, whether

for re-sale or for processing, and so has rendered co-operative enterprise unnecessary. The first place is now held by eggs and poultry, which together account for a total of something like £ 25,000,000. The co-operative packing stations handle between 35 and 40 percent, of all eggs produced in Britain. Whereas Britain once imported the bulk of her egg supplies, now 92 percent. are home-produced.

The societies are of various kinds. Some deal only in eggs, though most now take poultry also as a sideline; the largest of these societies has a turnover of well over £1,000,000. A few societies handle poultry only, while some of the large requisites societies have their own packing stations for eggs or poultry, or both, with the purpose of providing the markets with a reliable source of quality and weight-graded poultry of all kinds.

For Garden Produces

Societies for the marketing of fruit and vegetables were established many years ago in one of Britain's chief market garden districts, the Vale of Evesham in the West Midlands. They are of two kinds: the marketing society proper, which buys produce for re-sale, and the co-operative market, selling by auction on a commission basis. Both types handle both members' and non-members' produce, though the advantage of membership is naturally a share in the profits.

From a producer's point of view the buying type is the more valuable, and societies of this sort are now found in most of Britain's market garden areas. They have to meet keen competition from a large force of commission agents, merchants' representatives and others, and they depend for their success on good market information. Except for the societies in the West Midlands, they have not been established long enough to handle any considered proportion of the trade, but their share is growing each year.

A few co-operative bacon factories were established a number of years ago, modelled closely on the Danish pattern. They had great difficulty in maintaining even production, as they tended to be alternately glutted or starved, according to whether bacon or pork fetched the the better price. Of late years bacon production has been taken much more seriously by British farmers, and one large factory in Yorkshire now has a turnover of £ 7,000,000.

Meet and Wool

A few local abattoirs, true co-operatives have been formed in the past two or three years, and have met with much success. One in the Orkney Islands, off the north Scotland, where the cultivators resemble a true peasantry more nearly than any in England, had a turnover in 1954 of £ 1,7000,000. Another in English Midlands, with a turnover of £500,000 has found that its prices average 7 percent. higher than those fetched at the auction next door. This society claims that as a rule it can offer better prices than the Fatstock Marketing Corporation, with which it is in friendly rivalry. In the opinion of some farmers a system of local co-operatives is preferable to a large central corporation, though the latter is far better able to bring large-scale benefits quickly.

The latest addition to the co-operative list is wool, and a number of marketing societies are operating effectively as agents under the Wool Marketing Board.